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III.



MUSULMAN WOMAN OF BHOPAL.

ONLY a glance here and there of the characteristics of a few of the many races which inhabit Hindostan can be attempted within the scope of these articles. A mere catalogue of those races, with their subdivisions and modifications, would occupy a large space; while there is no one race of the many

that does not possess a history full of incident, and qualities which it were well worth while to observe, did space and time permit.

It was nearly nine centuries ago that Mahmud, the Afghan sultan, led the famous expedition across the Indus into Hindostan, which led finally to that gorgeous Mohammedan

Empire of Delhi which was finally broken up, in the last century, by the English. It is remarkable, however, that, while the followers of the Prophet, enforcing their creed by the fierce conversion of the sword, did for a long period dominate the greater portion of Northern and Central Hindostan, it was there that their faith received its first and effective check in its march eastward. Islam became the religion of Persia and Afghanistan, of Toorkistan and Cabool; but it never gained a complete ascendancy in Hindostan. There it was broken against the stern and compact power of Brahmanism. Yet everywhere north of the Deccan one finds the splendid remains of the empire which Baber, Akbar, and Aurungzebe, made one of the most formidable and prosperous powers of the East. Those remains are by no means confined to palaces and mosques, to lingering customs and still surviving laws; they include also a vast Mohammedan population, mixed to some degree with Mahrattas and other Hindoo races, but in the main preserving the lineaments and characteristics of their conquering and vigorous ancestry. There can be no doubt that Mohammedanism is still progressing in Hindostan, though that progress is now being made by persuasion and not by the sword. The mass of this race is to be found in the plain of the Ganges, in the regions round about Delhi, Lucknow, and Benares; about one-fifth of the entire population of the peninsula are Mohammedans, who comprise no less than forty millions. It is this vigorous and aggressive race that the English have most to fear in their Indian Empire. The docile Hindoo, so long as he is left his religion and his farm or trade, is at least too little enterprising, if left to himself, to engage in rebellion. The Mohammedan, on the other hand, being warlike and arrogant, with a religion that is militant and has a singular power in inspiring its votaries to martial ardor in its behalf, has never submitted cheerfully to the rule of the European and the Christian. Delhi held out obstinately against the assaults of Lord Clive; and, when Delhi fell, the spirit which made it the capital of the great Mogul Empire still survived. The traveler in the valley of the Ganges will not fail to recognize the Mohammedan by his haughty bearing, his vigor and energy in setting about all he does, the rich decorations of his costume (a striking contrast to the dreary simplicity of the mosque in which he worships), his voluptuous and dis-

solite manner of living, and the openness and frankness of his bearing when compared with the oily craft and submissiveness of the secretary of Vishnu and Siva. The Mohammedan is hot-tempered, hasty, revengeful, and arrogant. He disturbs the peace oftener than his Hindoo neighbor, and is a more familiar figure in the police-courts. It is he who is first suspected when a governor-general is assassinated, or a rising is threatened. Many of the Mussulmans who reside at the great commercial ports of India are Persian or Arabian by birth, and have come, as the Chinese do to California, and as Englishmen do to Australia, in the hope of acquiring a rapid fortune and of returning home to enjoy it. This is also the case with those Moorish merchants who form so picturesque an element of the population of Kandy and other Ceylonese towns. The Ceylon Moor is a fine-looking man, attired in loose and fine garments, with a small turban and an intelligent, serious face. But, besides the transient Mussulmans, the Indian cities all contain a larger or smaller number of indigenous disciples of the Prophet. Especially noticeable are those of Bombay, which, being the seaport city nearest to the seats of the Mogul Empire, has attracted many Mohammedans from the country. They are mostly merchants, and in commercial qualities rank next to the Parsees. They wear handsome round white turbans, wound gracefully about their heads; long, ample gowns bound at the waist by wide, loose scarfs; sometimes with a chain of gold or silver about the neck, and large shoes turned up at the ends. They have round, sensual faces, though often shrewd and energetic in business enterprise.

One great source of weakness among the Indian Mussulmans arises from their being separated into two bitterly hostile parties, which rivalry is intensified in its bitterness by the fact that it proceeds from religious differences. These sects are the Sunnis and the Shiah. The Sunnis accept the traditions of what Mohammed preached, as having equal authority with the Koran itself; and they accord the veneration due to a sort of sainthood to the Imams Abou, Omar, Osman, and Ali, who succeeded the Prophet in his spiritual chieftainship. The Shiah, on the other hand, reject the authority of the imams, and wellnigh worship the memory of Ali and of Houssein. Ali was the son-in-law of the Prophet, and Houssein was Ali's son. The family feuds which succeeded the death of Mohammed gave rise to a division at the very beginning of the career of Islam, which has continued ever since, being separated by "memories of blood and an inextinguishable hatred." They have massacred and murdered each other, when the chance arose, for centuries. The Persian Shiah is hated by the Bengalese Sunni, who regards him as "vinegar to the teeth and aloes to the tongue." When the Shiah hears the names of those who poisoned Houssein, he spits fiercely; the Sunni wipes his mouth before mentioning the slayers of Omar. In Western India, the Sunnis far outnumber their rivals; but the Shiah are the most notable as merchants, especially in the smaller retail branches of trade. Their shops in the bazars of Bombay are full of curious knick-knackery, with which are to be seen the clothes and hardware imported from

Europe. They are quiet and retiring, and live without ostentation or luxury. It is worthy of note that the Shiah women of Bombay have abandoned the custom of seclusion which prevails among the Mohammedans in nearly every other part of the East. They go about the streets with uncovered faces just as do the Hindoo women. Rousselet says that, "although sometimes good-looking, they are never neat, and are often disgustingly dirty; by which they can easily be distinguished from their charming fellow-countrywomen, who carry cleanliness to excess, and spend much time in bathing." The Shiah have an annual festival, called the "Mohurram," which is as fruitful a source of riot and collision between the two rival sects of Islam as the anniversary of the battle of the Boyne is between the Orangemen and the Catholics in Ireland. It is celebrated in honor of Houssein, at the beginning of the Mohammedan year; and many of its features are exceedingly quaint and curious. The Shiah have what they call "houses of ten days' tears," places where they assemble at the beginning of "Mohurram" to bewail the cruel fate of the son of Ali. The story of that tragedy is monotonously chanted in verse, the Shiah beating their breasts and pulling their beards at the more sombre passages. With these performances come loud shouts of adoration for the imams, and maledictions upon their persecutors. Then the "taboots" are prepared for the principal ceremony of the festival. The "taboots" are counterfeit presentments, more or less exact, of the tomb raised in honor of Houssein at Karbala. They are made of a variety of materials, the wealthier Shiah having taboots of ivory, ebony, sandal-wood, cedar, and occasionally even of gold and silver; while the poorer are forced to be content with images made of bamboo, or colored or gilded paper. On the night of the seventh day an extraordinary sight is to be seen in the streets and by the broad beaches of Bombay. The Shiah then drag an image of Barak, Mohammed's mule, slowly and solemnly through the city, and so along the shores of the bay. On the ninth night a long and strange-looking procession of the faithful is formed, headed by the Moslem priests, in which the taboots are carefully borne along. Torches light up the multitude, and the discordant music of the East heralds its approach. In front of the procession wild figures are dancing and capering, and shouting, "Wah! Hassan! Wah! Houssein! Shah Ali!" Then all assemble at the mosque, where the "children of Houssein" appear clad in blood-stained garments, followed by an effigy of Houssein himself, headless, and stuck all over with arrows, while a white dove appears hovering over it. Then there is much howling and ado; the "children" of the Prophet's successor throw straw and dust on their heads; and two white horses, representing those of the martyred imams, spotted with blood, their harnesses torn and soiled, are trotted forth to lend new inspiration to the dismal groans and shouts. This painful episode over, the taboots are carried to the sea-beach; the ornaments which have been hung upon them are stripped off; and the taboots are cast upon the waves, the Shiah running into the water up to their

waists for this purpose, with noisy shoutings and the wild waving of naked arms. Thus ends this singular festival of the Mussulman Shiah. It takes place with the opening of the Mussulman new year, whenever there are enough Shiah to take part in it.

One of the most interesting of the ancient Mohammedan centres still remaining in India is Bhopal. This famous city lies in an amphitheatre, on the side of a gentle hill, below which a pretty lake lies nestled amid the rich Oriental shrubbery. "Looking down," says Rousselet, "upon the red-roofed houses and groups of palace-terraces, two gigantic minarets shoot proudly upward, like two arms raised toward heaven; and here and there bulb-shaped domes may be seen rising, surmounted by the golden crescent which characterizes the mosques; but no pagoda's spire, no pagan temple, pollutes the proud Mussulman city, one of the last bulwarks of Islam in Hindostan." Bhopal is governed by a princess, or *begum*, and her court is one of the most splendid and notable in the empire. The *begum's* career has been a stirring one. On her husband's death she assumed the regency in spite of the English; and then began an able administration of affairs which has made her one of India's most conspicuous rulers. She paid off the debt of her kingdom, and increased her revenues one-third, in ten years. She reorganized her army, created a police, established a good system of courts, and had the marsh-lands of her kingdom drained by dikes and canals. She worked twelve hours a day, inspecting all the improvements that were going on in person, traveling on horseback, and living in tents. She proved herself a good soldier when the Sepoy rebellion broke out, espoused the cause of the English, and put down the first movements of rebellion in her own territory. She forbade the slave-traffic, and introduced schools and orphan asylums. Indeed, the *Begum* of Bhopal has manifested many of those masculine and energetic qualities which we are accustomed to attribute to Elizabeth, besides an ardor for bettering the moral and intellectual weal of her people which was not so conspicuous in the Virgin Queen. She is described as being somewhat over fifty, with a narrow face, and bright, energetic black eyes. Her costume on state occasions is very rich, and rather masculine than womanly. It comprises pantaloons fitted tightly to the limbs, and an embroidered tunic, with a poniard glistening at the belt. In manner she is haughty and self-willed, with a right royal bearing; while, in talking with Europeans, her curiosity and inquisitiveness are boundless.

Among the branches of the Hindoo races that of the Jats has long been celebrated, for many reasons. There is no people in India which more promptly wins the admiration of the stranger. The Jats are principally found in the Punjab, and in the valleys south of Delhi; and the noble and picturesque town of Bhurtpore, with its towering citadel, seen far across the plain, is the capital of the most important province inhabited by this handsome, manly, and warlike race. It seems probable that at one period the Jats were the rulers of nearly all the Punjab, where for many centuries they formed a majority of the population,



JAT NOBLES.

and occupied the position of chief importance. They probably came from Central Asia; and it is surmised that they were the parent-stock from which came the Jutes, who migrated to Europe, and established the northern kingdom of Jutland. They were, early in their Indian history, nomadic in character, and shepherds by occupation. Their ancient government was of the simplest, their villages and tribes being ruled by councils of elders. The Rajpoots, who afterward overran that part of India, were obliged to respect the privileges of the Jats, and to receive a confirmation of their sovereignty from the hands of the Jat chiefs. No Hindoo race more heroically resisted the invasion of the Mohammedans; the Jats checked Mahmoud on the Indus, and Tamerlane could only conquer their legions by utterly destroying them. Thus the Jats, who had once been shepherds and nomads, became warlike, and are to-day the best native soldiers under the English command. Since their conversion to Namuck they have been known as Sikhs, the name by which they are most familiar to Europeans. Physically, the Jats are full of vigor and masculine beauty. They are tall and strong, with bright and intelligent features, fine teeth, and glossy, curly, black beards, abundant hair, aquiline noses, and

high, broad, well-developed foreheads; quick to learn, excellent subjects, prompt in the payment of their taxes. Their carriage is noble and dignified; their manners agreeable. The women are taller than those of most Hindoo tribes, and are often fine-looking. They appear freely in the streets without veils; and they are noted for their neatness and the taste with which, especially in the higher ranks, they attire themselves. The institutions of the Jats are purely democratic, each village being a complete republic in itself.

Buddhism has to some degree faded out in India, being replaced by the Brahmanical votaries of the Hindoo Pantheon; yet a very striking and remarkable race and sect still remains to sustain and practise that ancient faith. The Jains claim to prove, from their ancient religious records, that their origin reaches back for centuries before the Christian era, and that the creed of the Sakya Mouni was borrowed from the precepts of their own founder. The Rajpoots, who were once Buddhists, separated from that faith many centuries ago, and thereby the power of the Jains was greatly diminished; but, even to this day, they include a large proportion of the higher class of Hindoo merchants, and possess great wealth, the most important commercial houses

of Bombay and Calcutta being those of the Jains. Their priests are marked on the forehead with sandal-wood; they wear a cloth over the mouth, and go about with brooms, which they carry for the purpose of gently sweeping away any insects they may find in their path. The Jains are very peculiar in their ideas of animal life. They constitute, perhaps, the most efficient "Society for the Prevention of Cruelty to Animals" in the world. It is a cardinal duty imposed by their faith to preserve and care for the lives of the brute creation. Animal food they will not partake of on any account. They have erected hospitals for sick and maimed animals in many places, and devote a great deal of money and time to this excessively benevolent object. Their "Pinjrapol," or animal hospital, at Bombay, is a large and conspicuous building in the centre of the Black Town, which bears comparison, in point of architecture and spaciousness, with many of the Hindoo temples. The Jain who, as he passes along the city street or country road, finds a wounded beast or bird, is impelled to take it up tenderly, to carry it home and minister to it, or to convey it to the Pinjrapol. This institution is conducted much as are human hospitals. The four-legged patient is kept and nursed until it is cured; or, if its injuries are permanent, the hospital is its residence for life. Rousset's brief and picturesque account of a visit to the Pinjrapol is curious and amusing: "You go, in the first place, into a large court surrounded by sheds, in the midst of which are kept a number of oxen. There is nothing more curious than this assembly of sick quadrupeds. Some have bandages over their eyes; others, lame or in a helpless condition, are comfortably stretched on clean straw. Their attendants rub them down, and bring the blind and paralyzed their food. From this court we pass into another of less extent, containing dogs and cats in the same pitiable condition. This is so utterly repugnant to one's feelings to behold that I ventured to tell my guide it would be a greater charity to put an immediate end to their sufferings; to which he replied by asking whether we treated our invalids in that way. A little farther on is an inclosure reserved for bipeds. Aged crows spend their lives peaceably in this paradise of the brute creation in company with bald vultures and buzzards that have lost their plumage. At the other end of the court a heron, proud of his wooden leg, strutted about in the midst of blind ducks and lame fowls. All the domestic animals, and those that dwell in the vicinity of mankind, have here their representatives. Rats are to be seen in great numbers, and display remarkable tameness; mice, sparrows, parrots, peacocks, and jackals, have their asylum in this Jain hospital. However ridiculous this institution may seem, it is yet an example of the kindness and humanity of these people, whose charity would not allow any being created by the Almighty to suffer; and we can forgive what appears to us an absurdity to those men who can boast that they have covered India with their 'dharma-salas' for poor travelers, and have enriched the hospitals by their princely donations."

The Jains are not more distinguished for their humanity than for their taste and splen-

did achievements in architecture. In this respect they far excel all kindred races, which have but copied their examples of this art. The other Hindoos speak of them as "magic builders." Some of the most ancient and curious of the Jain architecture is to be seen in the sombre valley of Ourwha, where stands the temple raised in honor of Tirthankar, the founder of their religion. This temple, like those of Elephanta, is cut from the solid rock in a gloomy cavern, and contains many statues, some of them colossal, representing Tirthankar and his godlike successors. Everywhere in this region extensive remains of Jain architecture are found, showing what an amount of labor, and what fertility of imagination, this singular race employed upon works in celebration of their faith. Here, in the vicinity of the thriving town of Gwalior, are perhaps to be found the beginnings of that art of building and decoration which, flourishing for centuries, and finally extending to every part of Hindostan, has made that country a vast repository of the most interesting and splendid architectural remains. The stigma which the good Bishop Heber fastens upon the inhabitants of Ceylon, where, while

softly blow the spicy breezes, and "every prospect pleases," he says that "only man is vile," is not corroborated by more recent travelers to that lovely isle. The Cingalese are by no means an unfavorable contrast, in the matter of "yileness," to their swarthy kinsfolk on the Indian mainland; and even the Veddas, that wild and ghastly race which inhabits the interior of the island, prove better than they have sometimes been painted, on a better acquaintance. It would be sad, indeed, if the human beings who dwell in Ceylon were so utterly unworthy of their home; for it is assuredly one of the most beautiful spots on earth. "Bring together," says a recent visitor, "the grandeur of Alpine lands, the mellow beauty of Swiss scenery, where the Lake of Lucerne looks prettiest, add to the sketch cultivated fields of grain, and fill the picture with the luxuriant foliage of the tropics, and you have a faint idea of the scenery of Ceylon." And the climate is as healthy and delightful as the landscape is ravishing; while in plenteous profusion not only cereals, but cocoanut, coffee, cinnamon, rice, and bread-fruit, flourish in nearly every part of the island. The Cingalese, like the

Bengalese, are a mixed race, the Hindoo blood, however, evidently prevailing. They are darker and have coarser and lower features than their more northerly kindred, with high cheek-bones and flat noses. In character, they are very mild, peaceable, and little energetic, but good farmers, and less indolent than the people of the Deccan. They are not good soldiers, and have no genius for war. In religion they are Buddhist, and like the Hindoos of the peninsula they are divided into four castes. Besides the Cingalese, who comprise a majority of the inhabitants, Ceylon contains many Hindoos of later settlement, while the rare productiveness of the island has attracted thither many Moorish merchants. The Cingalese are very fond of dress, and both men and women, especially of the two higher castes, carefully deck themselves out with richly-embroidered clothes. The men wear short jackets, while they envelop themselves, from the waist down, with a highly-ornamented garment, in shape much like a European woman's skirt. Their hats are very peculiar, wider at the top than at the bottom, and bear some resemblance to the caps worn by undergraduates of Oxford and Cambridge.

Of the Veddas, the strange race which inhabits the interior of Ceylon, very much has been written and discussed of late. It seems not improbable that they represent the aborigines of Hindostan, or at least the savage people whom the Aryan Hindoos found when, in some far-remote age, they invaded the peninsula. It was, very likely, of the Veddas that Bishop Heber was thinking when he spoke so opprobriously of the denizens of Ceylon. Certain it is that they approach more nearly to the "missing link" between man and the monkey than any race hitherto discovered. When the Prince of Wales recently visited Kandy, a number of these savages were brought from the interior for his inspection. It is said that they appeared veritable wild men and women of the jungle, and that even the Cingalese gazed upon them in mute astonishment. "Miserable skeletons," says one who saw them, "with long, matted hair, great, rolling eyes, almost naked bodies, grasping their bows and arrows and looking round nervously as though they would dart away, these Veddas crouched together and glared like wild beasts." Each girl had twenty or thirty silver rings on her fingers, and there were also large rings on her ankles and arms. The Veddas feed for the most part on plantain, coconuts, and roasted monkeys and lizards; their one accomplishment seems to be skill with the bow. Their marriage customs are as simple as their mode of life is savage and monkey life. The young Vedda swain, when he has met his "fate," is not constrained to go through a suspensive period of courtship, or harass himself with long-drawn doubts. He easily wins the maiden's consent, and in order to conclude the pact with her not very obdurate parents, and conciliate their good-will, he merely presents the girl with a piece of cloth. This presentation, indeed, is the marriage-ceremony itself. By the mere act of delivering the homely gift, the couple become man and wife; and proceed to such housekeeping as the rather meagre Vedda civilization affords. It is said that their huts are built in



NATIVE OF MADRAS.

an hour, and that their cooking-utensils are mainly constructed of the leaves of trees. A recent traveler asserted that one remarkable trait of the Veddas is that though they weep freely, and on small provocation, they are never seen to smile; but, unfortunately for this striking ethnological discovery, the Veddas who were produced for the English prince's inspection laughed heartily more than once; though their laughter rather resembled the chattering of apes than the hilarity of mortals. The Vedda, indeed, lives as freely in the open air as does the monkey, sleeps in the branches of trees, and lives by hunting. His most conspicuous virtues are an apparent absence of vindictiveness and his scrupulous fidelity to his female partner. Religion he has none,

superstitions and corruptions of the creed of Vishnu; worshipping the cruel deity Kali, the wife of Siva, and the goddess of murder; and living lazily from hand to mouth. The interesting variety of races which makes Bombay, perhaps, the most curious of all Indian cities to the stranger, is wanting at the capital. But the low-caste Bengalese, though the most numerous of the native population, are in some sort redeemed by the intelligent Baboos, or Bengalese of the middle and mercantile class, the Brahmans, and the Marwaris, the latter of whom are noted as the shrewdest and most enterprising of the Calcutta brokers. The Baboos are remarkable for the courage and energy with which they have attempted to reform, not only the Hindoo religion, but

manism. They undertook the education of their girls, which Brahmanism prohibited, and sanctioned by example the marriage of widows, which was directly contrary to the Brahmanical law. Thus the Parsees at one extremity of India, and the Baboos at the other, are becoming the chief native bulwarks of English dominion; assimilating their characters and customs to English ideas, and setting the example which the English would fain see followed by all the vast population of the empire.

GEORGE M. TOWLE.

THOMAS CARLYLE.

III.

XI.—"SHOOTING NIAGARA: AND AFTER."

LATE in the summer of 1867 appeared the magazine paper, "Shooting Niagara: and After," which one may properly style a "Latter-Day Pamphlet." The new Reform Bill had passed, which he thought had pushed England into the rapids from which there was no way of escape backward, and the kingdom could only shoot the cataract into the vortex of democracy. It commences:

"There probably never was since the Hepharchy ended, or almost since it began, so hugely critical an epoch in the history of England as this 'we have now entered upon with unusual self-congratulation and flinging-up of caps; nor one in which the question of utter death or of nobler new life for the poor country was so uncertain. Three things seem to be agreed upon by gods and men, at least by English men and gods; certain to happen, and are now in visible course of fulfillment:

"1. *Democracy to complete itself; to go the full length of its course toward the bottomless, or into it, no power now extant to prevent it, or even considerably to hinder it, till we have seen where it will lead us to, and whether there will then be any return possible or none.* . . . 2. That in a limited time, say fifty years hence, the Church, all Churches and so-called religions, the Christian Religion itself, shall have deliquesced into mere 'Liberty of Conscience,' 'Progress of Intellect,' 'Philanthropic Movement,' and other aqueous residues of a vapid, badly-scented character; and shall, like water spilled upon the ground, trouble nobody considerably thenceforth, but evaporate at its leisure. 3. That, in lieu thereof, there shall be Free Trade, in all senses, and to all lengths—which some take to mean, 'Free racing ere long, with unlimited speed in the career of Cheap and Nasty;' . . .—so that everybody shall start free and everywhere, 'under enlightened popular suffrage,' the race shall be to the swift, and the high office shall fall to him who is ablest, if not to do it, at least to get elected for doing it."

According to this "Latest-Day Pamphlet," one of the most notable characteristics of the time is "that singular phenomenon which the Germans call *Schwärmerei*" ("enthusiasm" is our poor Greek equivalent); "which means simply 'Swarmery,' or the 'Gathering of men in swarms,' and what prodigies they are in the habit of doing and believing when in that miraculous condition!" Now it is to be noted that this very "swarmery" is the notable characteristic of the ages and movements



CINGALESE.

except it be called a religion to believe in a not very bad-natured devil.

It remains to say a few words of Calcutta and its native inhabitants. Calcutta, as all the world knows, presents the curious aspect of an English and a Hindoo city combined. There are squares worthy of the West End of London, long blocks of warehouses that one might fancy to have been transported from Leadenhall Street or Southwark; and there are, cheek-by-jowl with these stately quarters, the miserable single-story straw huts of the Hindoo, with now and then an Oriental variety in the shape of a pagoda or a temple. In the same way there is the wide contrast between the English residents, who in dress, manners, and habits, are hardly distinguishable from Londoners, and the gaunt, half-naked, black, and indolent low-caste Bengalese, whose chief occupation is to serve their European superiors. They are cowardly, cunning, and fanatical; devoted to the lowest and grossest

the social customs of the race. They, more than any other natives, have felt the influence of that European civilization which has established itself in their midst. Many of the old barbarous customs have been abandoned by them; and they have framed a creed which may be called a modification of Brahmanism by Christianity. Besides this, they have been very zealous in spreading education among their number. They have established schools and colleges, and many of the Baboo youth have been trained in the professions of law and medicine; and the English authorities were surprised to find Baboo students offering themselves for the civil-service examinations. Now Baboos are to be found not only in the employ of the government, but operating telegraph-wires, serving on the railways, and even sitting as judges in the town tribunals. Among the chief reforms of the Baboos was the establishment of the social equality of women among them—a grave departure from Brah-

which Carlyle everywhere characterizes as heroic ones. What was it but this which marked the triumph of Christianity over paganism in the Roman Empire? which gave vitality and force to Islamism and the Crusades? to the Reformation in Germany, and in Scotland? to the establishment of the English Commonwealth under the great Lord Protector? By what other means came to pass what he calls "the hopefulest public fact that has occurred in my time: that noble, patient, deep, pious, and solid Germany should be at length welded into a nation, and become queen of the Continent, instead of vaporing, vainglorious, quarrelsome, restless, and over-sensitive France?"

But "swarmery" is noble and heroic, or quite otherwise, according to the object of the swarming. The swarming of bees, "when their old homes have grown too narrow for them," and they enlist to found a new bee nation, is noble; that of flies around carrion, perhaps, quite otherwise, though that too has its use in the economy of Nature. Of all the idle swarmeries of these times, that by which the matter of slavery in America was settled, in a fashion quite different from his own scheme, is in Carlyle's opinion the notabest. He says:

"Essentially the Nigger Question was one of the smallest, and in itself did not much concern mankind in the present time of struggles and hurries. One always rather likes the Nigger; evidently a poor blockhead, with good dispositions, with affections, attachments; with a turn for Nigger Melodies and the like. The Almighty Maker has appointed him to be a servant. Under penalty of Heaven's curse, neither party to this preappointment shall neglect or misdo his duties therein. . . . Servantship, like all solid contracts between men, must become a contract of permanency, not easy to dissolve, but difficult extremely: a contract for life, if you can manage it, will evidently be the best of all, and this was already the Nigger's essential position. Mischiefs, irregularities, injustices, did probably abound between the Nigger and the Buckra; but the poisonous tap-root, that servantship and mastership on the nomadic principle was ever, or will ever be, except for a few brief periods, possible among human creatures, had never been there."

All that Carlyle could see two and a half years after the conflict was over—a conflict in which there was on both sides more heroism and self-devotion than in any other conflict of arms ever waged upon earth—all that he can now see in it, was simply a bloody fight as to whether servants should be hired for life, or by the month or year. He here reproduces this squib, "The American Iliad in a Nutshell," written by him more than four years earlier:

"*Ilias (Americana) in Nuce.*"

"PETER of the North (to Paul of the South): Paul, you unaccountable scoundrel, I find you hire your servants for life, not by the month or year, as I do! You are going straight to Hell, you—!"

"PAUL: Good words, Peter! The risk is my own; I am willing to take the risk. Hire your servants by the month or day, and get straight to Heaven; leave me to my own method."

"PETER: No, I won't, I will beat your brains out first! (*And is trying dreadfully ever since, but cannot yet manage it.*)"

This is dated May 3, 1863, two months to a day before the battle of Gettysburg and the capture of Vicksburg gave a decided turn to the contest which had seemed to hang in even scale, the balance, if anything, inclining toward the cause now lost. Carlyle never seems to have perceived that the "Nigger Question" was not the main issue involved; but that the thing to be decided was, whether America should soon be what England was under the heptarchy; what Germany and Italy were for centuries; what the states of South America now are; or should be again welded into a nation, one and undivided, and we trust indivisible. His summation of the matter is that—

"A continent of the earth has been submerged, for certain years, by deluges from the Pit of Hell; half a million (some say a whole million—but surely they exaggerate) of excellent white men, full of gifts and faculty, have torn and slashed one another into horrid death, in a temporary humor, which will leave centuries of remembrance fierce enough; and three millions of absurd Blacks, men and brothers (of a sort), are completely 'emancipated,' launched into the career of improvement—likely to be 'improved off the face of the earth' in a generation or two. *Papa! papa! wonderful indeed!*"

"Swarmery" in England has done its work, too. It has got up its puddle of Parliament and Public, what it calls its 'Reform Measure'; that is to say, the calling in of new supplies of blackguardism, gullibility, bribeability, and amenability to beer and balderdash, by way of amending the woes we have previously had from our previous supplies of that bad article.

"But meanwhile," says Carlyle, "the good that lies in this delicious 'new Reform Measure'—as there lies something of good in almost everything—is perhaps not inconsiderable. It accelerates notably what I have long looked upon as inevitable; pushes us at once into the Niagara Rapids; irresistibly impelled, with ever-increasing velocity, we shall now arrive; who knows how soon? For a generation past it has been growing more and more evident that there was only this issue; but now the issue itself has become imminent, the distance of it to be guessed by years. Traitorous politicians grasping at votes, even votes from the rabble, have brought it on. And yet, with all my silent indignation and disgust, I cannot pretend to be clearly sorry that such a consummation has been expedited. The sum of our sins, increasing steadily day by day, will at least be less, the sooner the settlement is."

In response to the inevitable questions, "What is to happen when England, already in the Rapids, comes to actually shooting Niagara to the bottom?" and, above all, "What are the possibilities, resources, impediments, conceivable methods and attemptings of its ever getting out again?" the oracle of this "Latest-Day Pamphlet" replies: "Darker subject of prophecy can be laid before no man; and, to be candid with myself, up to this date I have never seriously meditated it, far less grappled with it as a problem in any sort practical." But, "as it is not always the part of wise men and good citizens to sit silent," he makes several suggestions, one of which has a "practical" if not a practicable look:

"Supposing the Commonwealth established, and Democracy rampant, as in America, or in France by fits for seventy-odd years past, it is a

favorable fact that our Aristocracy, in their essential height of position, and capability (or possibility) of doing good, are not likely at once to be interfered with; that they will be continued further on their trial, and only the question somewhat more stringently put to them, 'What are you good for, then? Show us, show us, or else disappear! . . . I have sometimes thought what a thing it would be, could the Queen 'in Council' (in Parliament or wherever it were) pick out some gallant-minded, stout, well-gifted Cadet—younger son of a Duke, of an Earl, of a Queen herself; younger son doomed now to go mainly to the Devil, for absolute want of a career; and say to him, 'Young fellow, see, I have scores on scores of "colonies," all ungoverned, and nine-tenths of them full of jungles, boa-constrictors, rattlesnakes, Parliamentary Eloquences, and Emancipated Niggers ripening toward nothing but destruction. One of these you shall have, you as Vice-King; on rational conditions, and *ad vitam aut culpam*, it shall be yours (and perhaps your posterity's if worthy). Go you and buckle with it, in the name of Heaven, and let us see what you will build it to.'"

Now it is very true that the queen (to say nothing of sundry earls and dukes) has sons enough who have shown a notable capacity for going to the devil; but to our own mind it is not altogether certain that would be quite a sufficient reason for making one of them the vice-king of India or Australia.

Carlyle has "lurking a considerable hope that many of our titular aristocracy will prove real gold when thrown into the crucible," although many of them will be "drawn, pushed, and seduced into the universal, vulgar whirlpool of parliamenteering, newspapering, novel-writing, Comte-philosophy, immortal verse-making, etc., etc." Then there is the "aristocracy of Nature, who are of two kinds: the speculative, speaking or vocal; and the practical or industrial, whose function is silent." Of the speculative class, he thinks that "for a great while yet most of them will fly off into 'literature,' into what they call art, poetry, and the like, and will mainly waste themselves in that inane region." Forty-odd years ago he had written, as we have seen, "Could ambition always choose its own path, and were will in human undertakings synonymous with faculty, all truly ambitious men would be men of letters." His present advice is: "Of 'literature,' keep well to the windward. In fifty years, I should guess, it will be a credit to declare, 'I never tried literature; believe me, I have not written anything.'" Of this speculative class of the aristocracy of Nature, Carlyle upon the whole hopes something, but not much; far less than of the silent or industrial hero—

"Who is here and there recognisable as developing himself, and as an opulent and dignified kind of man, and is already almost an Aristocrat by class; and is by intermarriage and otherwise coming into contact with the Aristocracy by title. . . . He cannot do better than unite with this naturally noble kind of Aristocrat by title: the Industrial noble and this one are brothers born; called and impelled to coöperate and go together. The united result is what we want from both. . . . This Practical man of genius will not be altogether absent from the Reformed Parliament; his *make-believe*, the vulgar millionaire, is sure to be frequent there, and along with the multitudes of brass guineas, it will be very salutary to

have a *gold* one or two. In and out of Parliament our Practical hero will find no end of work ready for him."

This "Latest-Day Pamphlet" closes with some noble paragraphs upon education in its widest sense. Of these we present, often much abridged, a few pregnant sentences, which are practical and practicable. Under the wise direction of these future rules there will be—

"Schooling and training of the young in the way that they should go, and the things that they should do. Our schools go all upon the *vocal* hitherto; no clear aim in them but to teach the young creature how he is to *speak*, to utter himself by tongue and pen, which, supposing him even to *have something to utter*, as he so very rarely has, is by no means the thing he specially wants in these our times. How he is to behave and do, that is the question for him. . . . I always fancy there might much be done in the way of military drill withal. Beyond all other schooling, and as a supplement or even as succedaneum for all other, one often wishes the entire population could be thoroughly drilled into coöperative movement, into individual behavior, correct, precise; not military drill only, but human in all its kinds; so that no child or man might miss the benefit of it. I would begin with it, in mild soft forms, so soon almost as my children were able to stand on their legs; and I would never wholly remit it till they had done with the world and me. This outwardly-combined and plainly-conciliated discipline, in simultaneous movement and action, is one of the noblest capabilities of man; one he takes the greatest pleasure in unfolding, not to mention at all the invaluable benefit it would afford him if unfolded. I believe the vulgarst Cockney crowd, flung out millionfold on a Whit-Monday, with nothing but beer and dull folly to depend on for amusement, would at once kindle into something human, if you set them to do almost any regulated act in common. Here is a mine hitherto as good as never opened, worked only for the fighting purpose. Assuredly I would not neglect the fighting purpose. No, from sixteen to sixty, not a son of mine but should know the soldier's function, too, and be able to defend his native soil and self in best perfection when need came. But I should not begin with this; I should carefully end with this, after careful travel in innumerable fields by the way leading to this. . . .

"These are the kind of enterprises, hypothetical as yet, but possible evidently more or less, and in all degrees of them tending toward noble benefit to one's self and to all one's fellow-creatures. . . . More of such divine possibilities I might add: That of 'Sanitary regulation,' for example; to see the divinely-appointed laws and conditions of Health at last *humanly* appointed as well; year after year more exactly ascertained, rendered valid, habitually practised in one's own dominion; and the old adjective 'Healthy' once more becoming synonymous with 'Holy'—what a conquest there! But I forbear, feeling well enough how visionary these things *look*, and how high and spiritual they *are*; little capable of seriously tempting, even for moments, any but the highest kinds of men."

XII.—LATEST WRITINGS.

WITH such brave words should have closed—indeed, save for two or three pages, does in fact close—this "Shooting Niagara: and After," the latest of Carlyle's utterances upon the high and lofty themes to the contemplation of which he had devoted almost

threescore thoughtful years. For five years following he preserved an almost unbroken silence, the most notable exception to this being a letter to the London *Times*, at the close of 1870, upon the "Later Stage of the French-German War." The siege of Paris was then going on, and public opinion in England was almost wholly in favor of the French. The annexation of Alsace-Lorraine by the Germans, and the want of magnanimity toward France, were bitterly denounced. Carlyle affirms that the French acquisition of Alsace-Lorraine had been effected by fraud and violence, and says:

"There is no law of Nature that I know of, no Heaven's Act of Parliament, whereby France, alone of terrestrial beings, shall not restore any portion of her plundered goods when the owners they were wrenched from have an opportunity upon them. . . . No nation ever had so bad a neighbor as Germany has had in France for the last four hundred years; bad in all manner of ways—insolent, rapacious, insatiable, unappeasable, continually aggressive. Germany, after four hundred years of ill-usage, and generally of ill-fortune, from that neighbor, has had at last the great happiness to see its enemy fairly down in this manner. And Germany, I do clearly believe, would be a foolish nation not to think of raising up some secure boundary-fence between herself and such a neighbor, now that she has a chance. I believe it to be perfectly wise that Germany should take these countries home with her from her unexampled campaign, and by well fortifying her own old *Wasgau* ('Vosges'), *Hundsrück* ('Dog's-back'), three Bishopsrics, and other military strengths, secure herself in time coming against French visits."

In 1875, Carlyle, now eighty years old, published several historical sketches of the "Early Kings of Norway," and a paper on "The Portraits of John Knox," which were collected into a small volume. It is to be regretted that he never took in hand to write the life of John Knox, whom he regards as "one of the truest of the true; one of the select of the earth; the author, as it were, of Oliver Cromwell; without whom the Puritan revolution would never have taken place in England at all; a man with a beautiful Scotch humor in him, as well as the grimmest and sternest truth when necessary, and a great deal of laughter." A life of Knox, by Carlyle, could hardly have failed to be worthy a place by the side of the "Speeches and Letters of Oliver Cromwell."

XIII.—THE MAN AND HIS WORK.

THE place of Carlyle in our literature is well assured. No man of his generation has done so much to stimulate thought. The very concentration of his nature, which in a manner precluded him from taking a large view of any subject, intensified the perceptions which he did acquire. The matter which at any moment happened to occupy his thoughts was the one important thing in the universe. Stand where one may, the crown of the heavenly dome is right over his head, the centre of the bottomless pit right under his feet. He is always in the centre of the universe. So it is of space; so in time was it to Carlyle. The era which was the present one to him was the great era of the world. Hence his histories derive their vividness and force.

So was it in the domain of ethics. The one view which he was taking was the only one which could be taken. He saw that weakness was an evil; and so deified absolute force. He saw that loquacity was a vice; and so silence was the highest virtue. He saw that democracy was not a perfect form of government, and could find no safety but in despotism.

This one-sidedness led him into manifold inconsistencies. In "Sartor Resartus" he styles George Fox's making himself a perennial suit of leather the great fact of modern history; and his resolving to trust for food to wild berries made him the greatest of modern men; while in "The Nigger Question" he pours out his contemptuous wrath upon West Indian Quashee because he is content to live on "pumpkins," and will work only the half-hour a day required to procure them. In one mood he says: "Our American cousins have begotten, with a rapidity beyond example, eighteen millions of the greatest bores ever seen in the world before;" in another mood he styles the "English and Americans the finest nations of the world." As a guide to conduct one through the mazes of speculation and inquiry there could hardly be a poorer one than Carlyle. Some one has said, not inaptly, of his philosophy, that it "begins everywhere, and goes nowhere." He is great as a stimulator to thought, not as a leader of it.

To Carlyle as an historian we have already accorded a place high up among the highest. The same qualities of mind which made him a great historian made him the best biographical critic who has written in our language. His best papers in this department are indisputably our best, unless, indeed, one should hold that half a dozen of Macaulay's best are equal to as many of the best of Carlyle. But we think it certain that if any one were to compile half a dozen volumes of the best critical essays in all our literature three of them would be made up from Carlyle.

The materials for his biography, we imagine, will ever be few and scanty—almost as scanty as those for Shakespeare's. His life-works are his life. Except in his books he scarcely ever appeared before the public. Three or four courses of lectures—of which only that on "Heroes and Hero-Worship" has been printed—delivered before audiences of two or three hundred, and his Edinburgh Inaugural, are his only appearances in public. For more than forty years he has lived in one house in London, and yet few of his neighbors know him except by sight. During the earlier part of his career he went often into society, especially of the literary kind. Count d'Orsay sketched his portrait in what may be called the fashionable attire of the day, and his likeness appeared among the literary lions seated at a banquet given by Maginn, the rollicking editor of *Fraser's Magazine*. Gilfillan and Grant devote to him a few pages in their volumes of gossip. Later his habits grew more and more reclusive. He was almost as solitary in crowded London as he had been in lonely Craigenputtock. Tourists of a literary turn, especially of the American species, were indeed addicted to

calling upon him, and were graciously received, although he once complained of such a "blatherskite, who has taken away from me two mortal hours, which I shall never get back to all eternity." His life of Frederick was then on his hands, and a man thus engaged could ill afford to lose two hours. Still later, and until the infirmities of advanced age pressed heavily upon him, his tall, gaunt figure, in a brown coat with dark horn buttons, and a broad-brimmed, slouched felt-hat, with a huge walking-stick in his hand, might often be seen in the quiet streets around his home, mostly late at night, as he took his meditative constitutional walk under the stars; and sometimes he was to be seen riding alone on horseback.

His neighbors have a few anecdotes and reminiscences of him. They tell how he kept his horse, which he always groomed himself, in a stable on a piece of waste ground, among donkeys, cows, and geese. How he has been seen to rush out upon an organ-grinder, who was disturbing his meditations, and, seizing him by the collar, deposit him and his instrument of torture upon the door-step of a neighbor who had made himself conspicuous by writing in favor of the noisy nuisance. How he bitterly complained of his neighbor's fowls, who would never hatch in peace, nor let him. How he one day found himself short of threepence to pay his omnibus-fare, whereupon the suspicious conductor sent a boy home with him to make sure of not being bilked out of his lawful dues. And how the candy-woman, hard by his house, found him an excellent customer for her wares, with which he was wont to fill his capacious pockets for the benefit of the poor urchins whom he encountered in his walks.

Leigh Hunt, who was for a time his neighbor at Chelsea, and who had good reason to speak of Carlyle's kindness in pecuniary and other matters, thus writes of him in his autobiography:

"I believe that what he loves better than his fault-finding, with all its eloquence, is the face of any human creature that looks suffering, and loving, and sincere; and I believe, further, that if the fellow-creature were suffering only, and neither loving nor sincere, but had come to a pass of agony in this life which put him at the mercies of some good man for some last help and consolation toward his grave, even at the risk of loss to repute, and a sure amount of pain and vexation, that man, if the groan reached him in its forlornness, would be Thomas Carlyle."

ALFRED H. GUERNSEY.

THE QUEEN OF THE LOIRE.

BY THE AUTHOR OF "PATTY," "THROUGH NORMANDY," ETC.

WE did not reach Nantes till quite late at night. The next morning being a bright Sunday, we got an excellent first impression of the city—the Queen of the Loire, as it may be justly called. The large, open Place de Graslin in front of the Hôtel de France, and the streets leading from it, were

filled with people on their way to church; and as we went down the Rue Crébillon (a handsome street full of good shops) toward the cathedral, we passed groups of peasants in the flower-market—the women wore white caps of the most quaint and original shape, and the dear little round-eyed children close-fitting skull-caps and long white pinafores.

The Place Royale, at the end of the Rue Crébillon, where the flower-market is held, is very large, with a fine fountain in the centre. The profusion of rare flowers on all sides reminded us how much Nantes lies south of Paris; magnolias, Cape jessamine, and most exquisite roses were offered us for a few sous the bouquet, and huge bouquets, too.

We turned up a little street on the left of the square to see the Church of St.-Nicolas, a very beautiful new building, from the designs of Monsieur Lassus. The present bishop of Nantes, it is said, refused to be consecrated until this church was completed. Evidently no expense has been spared, but it is not quite finished, some of the stone being left unsculptured. We went down again to the Rue d'Orléans and crossed the bridge over the Erdre, or rather the canal which connects that river with the Loire. The quays here were full of people, some of them in picturesque costumes. We especially noticed a great variety in the handkerchiefs or small shawls worn by the women, ranging from richly-embroidered cashmere to dark-brown cotton covered with white-and-orange sprigs and borders. These, with the Nantais caps, make a charming costume. There are good shops in the Rue d'Orléans, which changes into the Grande Rue as it approaches the cathedral. We passed the Place de Change, where once stood the most curious house in Nantes—the Maison des Enfants Nantais—now taken down. The two famous martyrs of Nantes, St.-Donatieu and St.-Rogatieu, sons of the Count of Nantes, who suffered for the faith in the third century, were called "Les Enfants Nantais."

Up the Rue Briord on the left are some curious old houses—for we found ourselves here in a far more ancient part of Nantes than the new western portion round the Place Graslin; the ancient Nantes seems to have scarcely extended west of the Erdre—and memories of the revolution of the butcher Carrier, and of the agony and sorrows that have been suffered in some of these houses, become vivid in the old streets near the cathedral.

Returning to the Grande Rue, we soon reached the Place St.-Pierre in front of the cathedral. There is nothing noticeable in the exterior of this building, but going round it in the Rue St.-Laurent on the right is a very remarkable house of the fifteenth century, called La Pallette, with a curious staircase and chimney-piece.

The first effect of the interior of the cathedral is imposing; the nave is very lofty, one hundred and twenty feet high, and the arches are singularly graceful; the mouldings of the piers are not broken by caps, but run round the triforium and roof. The east end is Romanesque in design, and looks stumpy

and heavy contrasted with the nave. The cinque-cento screen, too, is very inharmonious, but probably this will be removed when the extensive alterations now in progress are complete.

We did not see the gem of the cathedral, the famous tomb of the last Duke of Brittany, Francis II., and his second wife, Marguerite de Foix; this monument has been boarded up for eighteen months, while the additions are being made to the east end of the cathedral. It was erected in 1507 by the order of Anne of Brittany. One of the statues at the corners of the monument, that of Justice, is a portrait of Duchess Anne herself. This tomb was placed originally in the Church des Carmes, but during the Revolution it was rifled of its contents. In 1817 it was removed to the cathedral, and the remains of the famous Constable de Richemont, Duke Arthur III. of Brittany, were placed within it.

Near the entrance of the church the bases of the piers are ornamented with bass-reliefs; above these are canopies which seem to want statues under them.

Service was just going to begin, and the nave was full of people. The variety of charming caps was bewildering; the dresses were very sombre in color, but of good dark cloth, which hung in straight, massive folds; but the handkerchiefs, worn on the shoulders, were very bright in hue—the ends hidden in front under the bibs of the universal black aprons; this neckerchief seems special to the Loire Inférieure and the Côtes du Nord; we saw it rarely in Morbihan or Finistère. Presently the procession issued from the sacristy and came round the church—two immense *Swisses* walking in front with halberds, and carrying in their right hands sticks with huge metal tops, which they struck on the ground as they moved pompously on. The service was very fine, and the devotion of the congregation was most striking. It reminded me more of the congregation of a Belgian church than of a French one, except that the remarkable costumes made the kneeling group so much more picturesque, and the strange-featured, large-eyed, earnest Breton faces gave so much intensity to the expression of devotion. Even as the congregation left the church, there was far more devout seriousness in its behavior than we had noticed in Normandy. We saw scarcely any chattering, laughing recognitions till some little way from the church; an almost stiff seriousness seemed to make a general silence.

As the château cannot be seen after four o'clock, we found that it was better to go there at once by the Cours St.-Pierre. This and the Cours St.-André are broad public walks to the east of the cathedral, planted with avenues of trees; they reach from each side of the Place Louis Seize and the river Erdre on the north to the Loire on the south, on the site of the old fortifications.

The Cours St.-André has at the end nearest the Erdre statues of Olivier de Clisson and of Bertrand du Guesclin—the celebrated Breton knight whose fame and exploits seem to pervade the whole province, although the

most personal associations connected with him are to be found in the Côtes du Nord.

In the centre of the place is a statue of Louis Seize, and at the end of the Cours St.-Pierre nearest the Loire are statues of Duchess Anne and of the Constable de Richemont. A broad flight of steps leads down to the Loire, and there the largest of the daily markets is held for fruit and vegetables; but we turned aside to go into the château, which is still a very imposing building, although some of its fortifications have been destroyed.

The Castle of Nantes does not appear in the early history of the town; it was not founded till the ninth or tenth century, enlarged in the eleventh and thirteenth, and almost entirely rebuilt by Francis II., the last Duke of Brittany, in 1480. All the fortifications are said to be the work of this prince, especially the façade, where three out of the four towers built by him remain.

The three towers facing the quay are in excellent preservation, and are said to date from the time of Duchess Anne, who was born in the Castle of Nantes, January 25, 1477.

She left Nantes in 1488, just before her father's death, and for some years her hand was contested by several claimants for the fair duchy of Brittany. At last the young duchess married Charles VIII., of France, and quitted her beloved Brittany.

In 1498 she came back to Nantes a widow, and announced her intention of residing henceforth in the city, and giving herself up to the government of her country; but she did not hold to this resolution, and in the following year her marriage to Louis XII. took her back to France.

We passed through the castle gateway, and then we stood still in surprise. Coming out of the glare, and bustle, and modern life of such a thoroughly mercantile town as Nantes, it seems like enchantment to find this charming old interior with lofty sculptured dormers and cool shady trees. Some guns and piles of shells in a corner told the real nature of the place; a group of soldiers playing at a game turned and stared at us.

A very tall man appeared in answer to our summons, to guide us over the castle; he showed us first the curious well in the courtyard, and then led the way through a little ground-floor chamber to the staircase. He was a retired soldier, he said, and he seemed to think the greatest treat he could offer us was the contemplation of Chassepots of all ages and sizes. I think he must have taken us into four very large rooms filled with murderous weapons. There was the Snyder, the needle, the Martini-Henry, and other rifles, but our guide's favorite was the Chassepot, and he was constantly handling one lovingly, and explaining to me the exact manner of using this weapon. Finally he took me up to a stand of rifles, and, lifting up one of the older ones, he said, reverentially: "That, madame, is the first gun I ever carried."

He next showed us a room full of iron corsets—as he called the burnished steel cuirasses—of which he was plainly very proud. I think it gave him a shock as well as a sur-

prise when we hinted that the English made very good firearms—a remark provoked by the pertinacity with which he had been showing a heavy old blunderbuss as a specimen of English work, and contrasting with it a modern French Chassepot.

"Ah, but how is that, madame?"—he looked incredulous—"all the good guns which are not French are German."

However, if bigoted, he was a pleasant, intelligent guide, and, when we reached the top of the château, he explained very distinctly the different points in the grand view that lay stretched out on every side.

It is really necessary to visit either the tops of the castle or the cathedral to gain an idea of the immense breadth of the Loire, subdivided by so many islands that, to gain the opposite side of the suburb built on several of these islands, one has to cross a line of six bridges.

There are altogether twenty-one bridges over the Loire and Erdre, between which part of the city is built. From the top of the castle one gets also an excellent idea of Nantes itself. Our guide pointed out with much pride the three new churches, St.-Nicolas, St.-Clément, and the Chapel of Notre Dame de la Sallette; he spoke most reverentially of the Bishop Monseigneur Fournier; he said it was entirely owing to his persevering zeal that the beautiful Church of St.-Nicolas had been so successfully completed.

He pointed out the side of the castle from which the Cardinal de Retz escaped by means of a rope to the Loire, for the river before the building of the quays entirely surrounded the castle. Madame de Sévigné visited the castle soon after this escape.

We came home along the quay, but stopped at the Place du Bouffay, the saddest spot in Brittany, for the guillotine stood here in the days of the Reign of Terror, and swam the city with blood; and formerly this was the place of all public executions. Here Chalais died in the days of Louis XIII.; and here four Breton gentlemen perished in the conspiracy of Allamare.

The Palais du Bouffay stood formerly between this and the castle. It was a curious old building of the tenth century, built by Conan, Count of Rennes, when he conquered Nantes. There are some interesting old houses in this section; and north of the place close by is the Church of Ste.-Croix, which was rebuilt in the seventeenth century on the ruins of a pagan temple. It has a round-tower, on which the old belfry from the Tour du Bouffay has recently been placed.

Our guide at the castle had pointed out to us the Jardin des Plantes, and had told us it was better worth seeing than anything in Nantes; I conclude he meant next to his beloved Chassepots.

The gardens are most delightful. We entered through a screen of magnolias, and soon found a grand avenue of these beautiful trees covered with blossoms. The effect of this superb plant, with its broad, satin-looking leaves, with their horny lining, and its large, delicious, creamy blossoms growing on all sides in the open air, is very impressive.

It seems that a plant of magnolia was first brought to Nantes from North America in 1711. At the end of twenty years it outgrew the conservatory in which it had been placed, and the gardener resolved to destroy it; but his wife, wishing to preserve the beautiful plant, of which she had become very fond, placed it in the open ground where it had shelter from the north wind. It grew and prospered, and its offspring now adorn these beautiful gardens and many other quarters of Nantes. One of the oldest magnolias is that at the end of the lime-walk. There are forty-eight magnolia-trees in the great avenue; but, besides these, we saw all kinds of tender plants blossoming freely out-of-doors—the exquisite blue penciled plumbago, the banana, palm, and many others. There is water on every side, sometimes widening into a lake, and sometimes a narrow stream bordered by weeping-willows, and filled with rare flowering plants.

Besides the flowers, which are abundant, there is a wealth of rare trees, and the heat was so intense that we found the refreshing shade under some of these most grateful. These gardens are very enticing retreats.

On our way back we passed the Lycée and the Archæological Museum, crossed the Place Louis Seize, and went up the Rue Royale. At the top of this is the prefecture, built as early as 1763. It has a fine staircase. Farther on is the Museum of Natural History on the Place du Port; and a little to the south of this the Hôtel de Ville. There is nothing to see here but a little casket which once held the heart of Anne of Brittany. Close by the Hôtel de Ville is the society of the Frères Chrétiens, and a little way on, at 8 Rue St.-Jean, is a remarkable old house called the House of the Sisters of St.-Vincent de Paul—the statue of the saint at one of the corners is modern. In the Rue St.-Vincent, leading from the Place St.-Jean, are some curious old houses. The Rue St.-Léonard runs beside the Hôtel de Ville; at 23 in this street there is an inscription on a tablet on the wall to the comedian and dramatist Molière.

We crossed the Erdre by the Pont de l'Erluse, so as to come out by the museum. We had not time to examine the collection of pictures, but it is said to be very good. Across the Place Bretagne, the Rue Mercier leads to the Palais de Justice; above the frieze is a group by a sculptor of Nantes—"Justice protecting Innocence against Crime." In front of the Palais de Justice is the statue of Billault, and from here the Rue Lafayette, a street built of stone houses, leads into the Rue Crébillon. It is a pity these streets are not wider, for the houses in them, built of stone, are very handsome.

Across the Cours Cambronne from the Place Graslin, with the marshal's statue in the centre, one reaches the Quai de la Fosse. It might be very pleasant here, with the magnolias and chestnut-trees, if it were not spoiled, as all the other quays are along the Loire, by the line of railway; the effect would be imposing, but the senses of sight and hearing have given way to utility, and one wonders how the Nantais could have

consented thus to injure the look of their city. No 5, at the beginning of the Quai de la Fosse—Maison des Tourelles—Henri Quatre signed in 1598 the famous Edict of Nantes, which gave the same privileges to those of the Reformed religion as to Roman Catholics, and which gave a great stimulus to trade. The revocation in 1685 caused an insurrection in the city, which occasioned much bloodshed. There are other old houses besides this one on the Quai de la Fosse, although it seems the centre of modern bustle and life. At its farther extremity is an avenue of magnolias with a sort of summer-house commanding a very extensive prospect, and close by is the Escalier Ste.-Anne, leading to the avenue and church of that saint, and also commanding a fine view. At the top of the staircase is a statue of Ste.-Anne. The view over the Loire, its islands, and surrounding hills, is very fine from this part of the town, and is quite worth going to see, though Nantes is spread out so far eastward and westward that the little carriages which stand for hire near the Bourse and the river Erdre are very useful, and might, with advantage, be more frequently stationed about the town. Near here is the gloomy granite building called Les Salorges, from which the *navades* took place.

There is a great deal to see in the manufactures beside the Loire—the largest magazines of *conserves alimentaires* in Europe; but still so much lies before the traveler who means to explore Brittany that I think he will not feel inclined at the outset of his journey to stay long in Nantes.

The Passage Poumerage, which connects the Rue Crébillon with the Rue de la Fosse, is very curious. It has three arcades of shops, one above another, connected by an immense double iron staircase. A very interesting excursion to be made from Nantes is to Clisson, to which the railway now goes; but, as it is in La Vendée, and not in Brittany, we did not visit it, though we heard that its ruined castle, once the residence of the famous constable, is very picturesque, as well as the country around it. Not far from Clisson is the Château de la Sulleraye, which Madame de Sévigné mentions in a letter to Madame de Gagnan. There are also the old Châteaux of Chassay, near St.-Luce Station, of La Cyuschein, on the right bank of the Erdre, fifteenth century. This château has a really grand old fireplace. A pleasant excursion on the Erdre is by the little steamer to Nort, near which is the Château de Lucinière, and last but not least interesting the Château de Buron, about ten miles out of Nantes. The oldest portion of this château was built by the Duke de Rohan in 1385, and the rest in the sixteenth century. The son of Madame de Sévigné sold it in 1700 to the Hersart family, who caused it to be restored by Ceineray. The room occupied by Madame de Sévigné is paneled in carved oak of the Louis Quatorze period. The peninsula of the Croisic can also be reached from Nantes via St.-Nazaire. The railway to St.-Nazaire is bordered along the quay by magnolias and horse-chestnuts, but after this is passed it is not interesting, except that just before reaching Douges we have on the right Les Grands

Brères, a most extraordinary kind of dry swamp, from which large quantities of bog-oak are dug. It is said that all the trees discovered here lie one way, their roots to the southwest, and their tops northeast. We looked out at Douges with interest, for it was here that Madame de Lescure, afterward Madame de la Rochejaquelein, wandered about in disguise when she and her mother and child had to shelter themselves among the peasants after the defeat of the Royalists.

THE PICTURESQUE AT SEA.

NOT only the picturesque, but the dramatic element also, mingles with the commonplace of a sea-voyage so largely that we long for the time when some such writer as Mr. Howells will interweave one of his pretty love-stories with the incidents that occur even in ordinary weather and under ordinary circumstances on board one of the great ocean-steamers that ply between Liverpool and New York.

Take, for example, the departure, on a summer Saturday, of one of these vessels: what suggestions and materials an artist, a playwright, or a novelist, might gather from it! The action is quick and pictorial. The interest is sustained, and increases up to the final moment, when, so to speak, the curtain is rung down.

The massive steamer is moored alongside the wharf by cables thicker than a man's arm, and, rough as her passage from the east may have been, she is now without blemish from stem to stern, and her vast hull, funnel, decks, and brass-work, are as clean and bright as sand-paper, holy-stone, and paint, can possibly make them. The last bushel of grain has been poured into the hold, and the floating, tower-like elevators have withdrawn with their dust and noisy *cargadores*. The officers, in a smart uniform of navy blue and gold-lace, are waiting around the gangway for the passengers whose coming has been foretold by the loads of baggage heaped up on the pier.

It is the fashion to "see one's friends off for Europe," and not only the passengers and their friends, but a crowd of spectators, impelled by curiosity, has assembled on the wharf an hour before the time of sailing. An abnormal eagerness, some pathos, and the strongest individuality, impress this unwieldy and heterogeneous concourse. It is visibly touched by some quality of instinctive sympathy or intimacy. A monstrous little hunchback elbowing his way among the finely-dressed ladies and gentlemen, is jeeringly asked by a rough, "Who is your friend, beauty?" and, when he answers, "They are all our friends now," he strikes the chord that is vibrating under the blackened roof of the wharf.

There are immigrants returning to their native lands, none the worse in dress or manner for the attrition of their brief sojourn here; commercial men who cross the ocean several times a year; unmistakably English tourists, with beefy faces and melo-

dious voices; the loveliest of girls animated with expectancy, pensiveness, grief, and exuberance—an agitated, unreserved intercourse going on between them. The ear is dinned with disjointed scraps of advice and tremulous greetings, and at last the steamer's bell is rung in peremptory tones, and those who are not passengers rush down the gangway to the shore.

What a florid, weather-beaten, yellow-bearded Saxon lot the officers are! The picture of one of them graven on a penny would indicate the nationality of the coin better than all the queen's heads in the universe! The chief takes his place in the bows, where a string of sailors are tugging at a hawser and singing a song:

"Pull away for Liverpool town,
With a yo-heave-ho!"

The second is on duty astern, the third amidships, and the fourth on the quarter-deck. The captain and pilot are on the bridge itself, whence they command a fore-and-aft view of the steamer, which seems immovable in its immensity.

The crowd has divided itself, and the passengers are gathered on the saloon-deck, while the others press for space on the wharf. The interest increases every moment. The hoarse orders of the officers mingle with fondly-spoken farewells and the hysterical sobbing of some soft-hearted girls. A loud splash is followed by a winding vein of ripples on the water in the dock. The last of the cables is cast off, and dragged up dripping and sparkling.

The inert floating mass is now inspired with life. The captain has telegraphed to the engine-room, and the great vessel throbs with new power, as she softly glides into the river.

Three hours later she is off Sandy Hook, the last point of land in her course; the pilot is sent ashore, and the same waters that wash the Gold-Coast of Africa break in crisp spray over her bows as she heads to the distant East.

The sun curves toward the horizon and brushes the sky, the clouds, and the waves, with a miraculous intensity of color; and the coast fades out of sight in the rosy mist exhaled by the cold and moaning ocean. The steamer is an aggregation of commonplace realities—a concrete of iron, oak, and brass, answering with supple obedience the gross power generated by Liverpool coals. But she sinks to the insignificance of a speck of dust on a pond in the infinite reach of sky and water by which she is surrounded.

The elements of the scene are pensive, the sounds are subdued. It is like a quiet summer's evening in a rural village ashore. The passengers are assembled in groups on deck, chatting and smoking with cordiality and *abandon*. By-and-by a sooty old man comes from below, with lanterns in his hands, strapped to his belt and slung over his shoulders—lanterns which he places in the binnacles and high up in the foretop, as if to anticipate the stars that are piercing the pallid east, and the night falls with a sudden blackness in which the steamer seems to be a meteor.

The saloon is luxuriously upholstered and

decorated. Every bolt and rivet visible has been converted into an ornament. There are crimson settees and table-cloths and brilliant lights, long rows of crystals, book-cases filled with calf-bound volumes, a marble mantel-piece with bronze ornaments, and a tinkling piano. To fully appreciate the contrast of the glow and warmth below and the darkness and wildness above, let us creep up the companion-way on to the deck again. The stars have burst out in myriads, but the night is still impenetrable. The water rushes along and laps against the iron bulwarks, each wave ribbed and crested with phosphorescent white, and its low beat harmonizes with the mournful symphony that the wind is playing in the rigging. A few yellow lights glimmer in the deck-houses, and a rolling cloud of fleecy vapor passes to the northward with a squall. At intervals of half an hour the ship's bell tolls the watch, and a long-drawn, deep-throated voice answers from aloft, "All's well!" There is something very sad in this dark expanse of troubled sea, despite the exhilarating sense of motion that impresses us as the freshening breeze sweeps us and moistens our faces with salty spray. I call the feeling sad, but it is as undefinable to me as it is to the saturnine officer of the watch who parades the deck with an expression of melancholy in his blue eyes. The pathos of the sea, we will name it—the heart's response to the rhythmical grief of the waves.

By way of another contrast, we go below again—not into the gorgeous saloon, however, but along iron galleries and down winding stairs into the oily, noisy region of the engines, the thunder of whose strokes reverberates in every part of the ship, even through the loudest Atlantic storm. The light is dim and uncertain, and the clangor of the Titanic beams, shafts, and cranks oscillating, telescoping, and revolving, is like the beat of a great steam-hammer. Every railing and every inch of foothold is vibrating with nervous sympathy, but the enormous arms of steel descending and ascending over us seem to be unsubstantial rays of daylight waving to and fro in the murky atmosphere. We make turn after turn in the slippery, greasy passages until we reach the lever and wheel that control this giant mechanism by a pressure scarcely heavier than a child's hand, and here we find the engineer in charge—a stalwart Scotchman, bearded and strong-looking, but as sallow as a London fog!

It is a characteristic of the English steamers that all the engineers are Scotch, and it is a characteristic of the Scotch that they never under any circumstances loose or soften a national trait, whether it be their dialect or their dinner. They may travel and break off all old associations, but the scent of the heather is enduring, and inconvertible into any other aroma.

Another turn in the perilous labyrinths brings us into the stoke-hole, an infernal sort of place fitfully illuminated by the white heat and blaze of a row of large furnaces, which demon-like coal-heavers are feeding constantly without satisfying. The iron doors are thrown open, and shovelful after

shovelful of coal is poured in and consumed with a savage hiss. Broad beams of yellow light dance from underneath the fires across the iron deck and up the bulwarks, and strange-looking men with stranger shadows flit hither and thither in the glare. It is a grotesque, unearthly sight, so weirdly theatrical that we again wonder why no realistic dramatist has attempted to reproduce it on the stage. Out of the engine-room a long tunnel in which a man can stand upright leads to the stern, the main shaft passing through it and working the propeller.

I am going beyond the purpose of my article, however, and my space is exhausted. But from the brief notes here presented it is hoped that the reader will find some proof that to one who has an eye for the picturesque a sea-voyage may be a revelation of unsuspected beauties.

WILLIAM H. RIDEING.

FALLEN FORTUNES.

A NOVEL.

BY JAMES PAYN.

CHAPTER XXXII.

EVIL TIDINGS.

JENNY said nothing of the news she had got from Jeff, even to Kate. It was quite right of Jeff to tell her; she would have resented it, had he not done so; but it was also right in her not to tell her sister. That one of the family should know it—and be miserable accordingly—was sufficient. What Kate would have said, had she known that Jenny, the weakest of them, was bearing this burden all alone, was another matter. There had been a time when Kate had been Jeff's confidante, and not Jenny; but of late he had changed in this respect. His letters were full of Kate, as Jenny noticed, with many a quiet smile, but not addressed to her.

"He is quite wise," reflected the recipient of these missives, "or that man might be tempted to open them."

This invalid young lady was certainly rather strong in her likes and dislikes. She thought Uncle George "an old dear," and the doctor "perfection;" but she had no hesitation in pronouncing (to herself, of course) Mrs. Campden as "base," Mary as "weak" and "undependable," and Mr. Holt as "a horror." She would never forgive his having aspired to her sister's hand, or Mrs. Campden for "egging him on" to do it (as she guessed), under pretense, too, of its being for the benefit of the family, and especially of herself. She even suspected Holt of being the cause of her father's ruin.

A fortnight had passed by since she had been told that there was "no cause for anxiety as yet;" and she could see that her mother was growing very anxious. In default of letters, Mrs. Dalton read the newspaper every morning with avidity—that is, the two half-columns of it which referred to "shipping intelligence" and "the mails." This paper, which arrived at Riverside in the afternoon, was forwarded to them by post next day with commendable regularity.

"It is so kind of Julia," said Mrs. Dalton, speaking of this to the doctor, "and so thoughtful."

"Yes," added Jenny, dryly, "and so troublesome. Marks" (the butler) "directs it himself, and puts it in the bag."

One morning, the *Morning Chronicle* came instead of the *Times*, which the girls could see had quite a depressing effect upon their mother. The reports about the shipping, she complained, were not so full.

"Never mind, mamma," said Kitty; "Tony shall go over the hill after dinner and fetch the *Times*, and take a line from Jenny to Marks to tell him to be more careful in future; the old fellow is devoted to her interests."

But, before Tony's lessons were over, Mr. Campden himself arrived on horseback; he had come once or twice before, but always hitherto with his wife or daughter.

"This is a great compliment, Mr. Campden," said Mrs. Dalton, gratefully, "that you should come riding over in this way, when we know you hate riding."

"I hope I should ride much farther than this, or walk either, my dear, to oblige you," was the reply, given with unusual earnestness. He had never called her "my dear" before.

"I always thought you were a duck, Uncle George," said Kate.

"I always said you were," said Jenny; "I had the courage of my opinion."

"What is it you want of me, girls?" inquired Mr. Campden, but his voice was mechanical, and unaccompanied by the usual smile.

"Well, I want the *Times* newspaper," said Mrs. Dalton. "I frankly tell you, Uncle George, I hoped you were come to repair a mistake that was made this morning; the *Morning Chronicle* was sent instead."

"Dear me!" said Mr. Campden, "how stupid of them! The fact is, we have such a lot of papers, and they get laid about so. But it shall not happen again."

"There was nothing in the *Times* about—about Brazil or the Rio mail, Uncle George, was there?" inquired Mrs. Dalton.

"Nothing, nothing, my dear," answered Mr. Campden, turning very red. "I'm going up to the mere to see about some damage that has happened to the keeper's cottage from the wind."

"Ay," said Mrs. Dalton, with a shudder, "what winds there have been lately!"

"They have been partial, however—very partial," continued Mr. Campden; "nothing seems to have suffered in the south.—What do you say to a little walk to the lake-side, Kate? If you will be my companion, I will put up the mare here, and go on foot."

To this Kate gladly agreed; and Tony looked up eagerly from his book with, "May I come, too, Uncle George?"

"Well, no, my boy," returned Mr. Campden, gravely; "it would be an interruption to your lessons; and just now it is expedient that you should buckle to."

A faint flush came into Mrs. Dalton's face; it was the first time that Mr. Campden had alluded—even thus indirectly—to the changed circumstances of the family.

"That is quite right," said she, quietly,

"But you can go down for a minute, Tony, and see that Uncle George's horse is put in the stable, and some corn given to it."

"Oh, never mind the corn," said Mr. Campden, hastily; and then he got so red again that Jenny became red, too, from sheer sympathy with his embarrassment. Fortunately, at that moment, Kitty, who had left the room, reentered it, equipped for her walk, giving the squire an opportunity of complimenting her upon the rapidity of her toilet, and after a few commonplaces they took their departure.

Over the bridge and past the churchyard, they walked in silence, or only returned the greetings of the villagers; but as soon as they got clear of the hamlet Mr. Campden addressed his companion with an unaccustomed tenderness and gravity.

"Kitty, my dear, you are a brave girl, I know; but I have got something to tell you that will try your courage."

"Not about papa, Uncle George?" cried she, with sudden vehemence. "Oh, don't say that with bad news about papa!"

"Well, my darling, it may not be bad news at all; there may be really nothing in it; but it does concern your father."

She did not answer, but he felt the arm within his own grow very heavy.

"That is right, dear; lean on me; whatever happens, lean on me," said Uncle George, encouragingly. "You see, although there may have been many causes to retard the ship in which your father sailed—the prevalent wind has been against it, for one thing, and the wind makes a difference, even to a steamer—it is without doubt over-time. That circumstance gives us anxiety, of course, and causes us to feel alarm, where perhaps there is no reason for alarm."

"Yes, yes. But what has happened, Uncle George? I am sure something has happened."

"No, no; we are not sure of that, thank goodness! We can still hope for the best. But a vessel has come into Liverpool that has fallen in with a lot of wreck—not of the ship, not of the *ship*, Kitty. Here; sit down on the hillside.—Good Heaven, she will catch her death of cold!" cried Mr. Campden, helplessly. ("What the deuce shall I do with her?" added the squire, privately, who was one of the clumsiest as well as the most amiable of men.)

"Never mind *me*—I am better now," said Kitty, slowly. "You said it was not the wreck of the ship?"

"Nor was it, my dear girl. It was only a bit of a boat belonging to the ship; the cutter, I think they call it. You have seen how boats are swung upon deck, and how easy it must be for a big wave to sweep them off into the sea. That is what has probably happened in this case. The ship has lost a boat or two—that's all."

"But how did they know the cutter belonged to papa's ship?"

"Because it had 'Flamborough Head' painted on the stern. There may be nothing in it; but that's why we didn't send the paper that had the paragraph in it on to the Nook."

"How good and thoughtful you are for

us, Uncle George!" said Kitty, who had risen to her feet, and was now walking slowly on.

"Well, we must not put that item down to our own credit, Kitty. We might have taken the precaution or not. Perhaps we should have done so had the paragraph caught our eyes; but it might have escaped them. I am bound to say I think it was very considerate in Mr. Holt to telegraph and draw our attention to it. 'Send on the *Chronicle* to Sanbeck,' he wired; 'the bad news is not in that.' He is a sharp fellow, there is no doubt; and I begin to think he is a kind fellow."

"It was very kind of him to telegraph," answered Kitty, in a low tone.

"Yes. Not one man in a thousand, as my wife says, would have thought of such a thing; and it shows the very strong interest he takes in you all. I don't think your father gave him quite credit for a good heart."

Kitty did not reply to this; and they walked on in silence for a while.

"I think, my dear, you are beginning to tire," said Mr. Campden, presently; "it is ill walking upon bad news."

"But we are not at the mere yet, Uncle George."

"Oh, never mind the mere," answered the other, turning about toward home; "that was only my excuse for getting a walk with you alone. I thought it right that one member of your family at least should know what had happened."

"And when shall we know more, Uncle George?"

"That is impossible to say, my dear. I hope the next Brazil mail may bring good tidings. Otherwise—otherwise, there will, no doubt, be grave cause for anxiety. You must try and hide your feelings from your mother, Kitty dear."

"Oh, yes, Uncle George; nobody shall see that I have her—heard anything;" and she made a strenuous effort—which almost succeeded—to stifle a sob.

"Yes, yes; you are a brave girl, and a clever one, too. Now, as for me, I can never hide anything from Julia.—I wish to Heaven I could, sometimes! And just now, in your dear mother's presence, I felt like—I don't know what—a disconcerted pick-pocket. It was the worst job I have had to do for many a day. She seemed to look through and through me, poor dear—as much as to say, 'How can you deceive me, and keep things back like this, Uncle George?' I can't see her again, Kitty; I dare not. But if there is good news to bring, I'll bring it to her, at the best pace the mare can go. You must make some excuse for me to your mother: say my wife insisted on my being back to lunch—then she will understand I had to go."

Poor Uncle George! his distress and embarrassment were so extreme that he was ready to part with this last rag of independence, even before society, with whom he had hitherto kept up some fiction of his being responsible for his own actions.

Kitty let him go, of course, and, as he got on his horse at the old "mounting-stone" in the Nook-yard (within view of them all,

as she knew), shook hands with him gayly, and waved her handkerchief as he rode out under the archway. Then, putting on as cheerful a face as she could assume, she entered the house. On the narrow and ill-lit stairs stood Jenny, with her finger on her lips, as pale as a ghost. "Come into my room," she whispered; "mamma is tired, and has fallen asleep on the sofa; and Tony is at his sums."

Kitty followed her, alarmed for her secret; her sister's eyes seemed to pierce her.

Jenny's room was a pleasant one in its way, though, like others at the farmhouse, low and dark. Books were on the table, the floor, the chairs, and even the little bed; her old desk was heaped with them; reading and writing had elbowed out the lace-making, which, however, she still pursued in the parlor. "What news, Kitty? I am sure there is bad news," were her first words as she closed the door.

"No—nothing," faltered Kitty.

"Don't deceive me, Kate; I mean, don't try to do it. Do you suppose I am blind? Uncle George did not come here for nothing. Who ever saw him like that before, so nervous and ill at ease? Was it like him to tell Tony to remain within-doors? Of course, he had something private to tell you; some misfortune—something about papa."

Kitty burst into tears. "Yes, Jenny, he had." Then, as well as she could, she told her. She had wept but little before Mr. Campden; sympathy of the passionate sort was wanting between them, and she had a reputation for courage to keep up; but now she broke down utterly.

"Hush!" said Jenny, warningly; "mamma will hear you." Her voice was firm, her eyes were tearless. Kitty thought she must have some hope.

"You think with Uncle George, dear, that the boat must have been washed overboard," said she, eagerly—"that nothing has happened to the ship itself?"

"No, I don't," was the cold reply.

"But you don't think the steamer has gone down, Jenny?" continued her sister, pleadingly; "things will not surely be so bad as that!"

"My thinking will not alter them, Kitty. They have been bad enough hitherto. One thing I confess I am surprised at, that Mr. Campden should have had the forethought to keep back the *Times*; that was a piece of prudence beyond Uncle George, and an act of tenderness (as I should have thought) beyond his wife."

"It was Mr. Holt's doing, Jenny," said Kitty. "He telegraphed to Riverside, to put them on their guard about the paragraph."

"Oh, indeed! that explains the matter."

"It was very thoughtful of Mr. Holt—was it not, Jenny?"

"Certainly. But no one ever accused him of want of forethought. He is a man who lays his plans very far ahead, I reckon."

"Jenny, darling, what makes you so hard? Surely, at a time like this—"

"Hard? I am not hard," broke in the other. "It is you, Kitty, who are too soft. Do you suppose that this man cares one farthing about dear papa or mamma, or even

about *you*, except so far as you concern himself? Do you suppose he took Jeff because he liked him, or out of charity, or from any good motive of any kind? No. He did it because he hoped to melt your heart toward himself; in hopes that you would say, 'How thoughtful and kind Mr. Holt is!' Just what you *have* said, in fact."

"O Jenny, how can you talk of Mr. Holt now, with such sad news knelling in our ears!"

"That is the very thing that makes me so bitter against him. At the first tidings of danger to dear papa, this man puts himself forward, presses himself upon your attention. He knows Mrs. Campden is backing him."

"And yet, if he had not telegraphed, Jenny, and the *Times* had come, and mamma had read the paragraph—"

"True; it would have killed her. Pardon me, Kitty," said Jenny, throwing her arms about her sister's neck; "I have been unjust and harsh. One has no right to disbelieve in good, for that means in God. Perhaps it is all for the best, but we have been greatly tried of late; and we are feeble folk, like the conies, a few women and a child. It has seemed hard to me, that's all; I have known about papa for weeks; that is, that the ship has been spoken of as overdue at Lloyd's. Jeff wrote to say so."

"O Jenny, how could you keep such a dreadful secret to yourself?"

"Because it was needful, Kitty, as it is needful now to keep this one. I believe that mamma suspects something even now. She was no more deceived by Uncle George than I was."

"But, Jenny, if she asks me—?"

"She will ask nothing. She will be as dumb as an Indian at the stake. She will know that we have good reasons for being silent; and that will be enough for her. She is a saint and a martyr; and yet not a martyr for any purpose. I mean, 'unmerciful disaster' pursues her 'fast and ever faster,' without any reason, except it be to show the futility of being good."

"O Jenny, don't say that! The ways of Providence are inscrutable."

"I think I have heard that remark before. For my part, Kitty, I derive no comfort from such commonplaces. You will presently tell me that we may be even worse off than we are. Mamma may die, for example, as well as papa be drowned. Then you will say, like the Job's comforters of whom the poet speaks, that

'Death is common to the race.'

His reply was, if you remember:

'And common is the commonplace,
And vacant chaff well meant for grain.'

I confess that I agree with him."

"O Jenny, do not be so bitter. I am sure, I am quite sure, that if dear mamma knew it, would distress her almost as much as this sad news to-day."

"You are quite right, Kitty; that is, because she is an angel. Yet only think what she has suffered! Is Fate a coward, think you, that it should thus heap blow on blow on one like her, so helpless and so innocent, or how is it?"

"The riddle of the painful earth" was growing too much for this poor girl, as it does grow once or twice in a lifetime for

most of us; and for some, alas! all their hard lives through. Her thin hand was clinched, her frail frame trembled, her large soft eyes flashed defiance—at the universal law. There was one thing excusable about this poor impotent mutineer—that she was not in rebellion on her own account. No one had ever heard her, crippled and invalid though she was, utter one impatient word with respect to her own condition. These bitter reproaches against Fate—the *sarva indignatio* that Swift felt upon his own account, and would have had sculptured on his tombstone—were all for her mother's sake; she reviled the inevitable, as the hen flutters her feathers in the face of the cruel fox because her young—not herself—are menaced.

Mrs. Campden used to say of Jenny that she had an undisciplined mind: one of those severe but sagacious remarks that even the shallowest people will bring forth sometimes, who are always talking, and always with the view of making themselves more or less disagreeable.

Kate herself, as we heard upon the occasion of our first introduction to her, was by no means one who had accepted life without question, or concluded it easy-going for everybody, because the way had been always, until recently, made smooth for *her*; but Jenny's revolt was so decided that it shocked her into propriety of opinion, as a respectable Whig, finding himself in Radical company, will shake his head, turn short round, and retrace his steps. In argument she knew her sister was too strong for her, so she wisely avoided it.

"My dear Jenny, all these things are too difficult for me," said she, frankly. "Of course, I am well aware that dear mamma does not deserve to suffer; for, if she does, who on earth would escape suffering, as certainly some folks do? Perhaps she suffers—as she does everything else—for the sake of other people: of you and me, for instance. In the end she will be among the blessed forever, but in the mean time she is martyred for our sake; being a lesson to us of obedience and submission to the will of God such as we should never learn elsewhere. One may say, if this be so, it must be cruel to wish her to remain with us; and yet we are both so selfish that we cannot bear to think of parting with so sweet a teacher."

"That is true, at all events," said Jenny, softly. "I will go to her now, lest our absence should excite her suspicions. I shall say that I have seen you, and that Uncle George is gone. Kiss me, Kitty."

The two sisters embraced tenderly; they had never had the quarrels that sisters do have; thanks, perhaps, to Jenny's condition.

If Fate was resolute to be hard upon them, it would at least find them united.

BOOK-MAKING IN PARIS.

THE "NOVEL-FACTORY OF ALEXANDRE DUMAS AND COMPANY."

THE worthy class of people who are convinced that seeing is believing are apt to suppose that the name on the title-page of a book is the name of the author of the book

—and in England and this country such is almost always the fact. In Paris, however, it is often the name of only one of the authors. Behind the apparently sole authorship is the authorship "in association." The manuscript has resulted from "collaboration;" and this system, as it is pursued by French literary men, is one of the most curious features of contemporary literature.

Collaboration is essentially a French invention. It has never been very popular in England or America. Shakespeare is said to have assisted Ben Jonson in one or two of his plays, and the practice has occasionally been resorted to by others; but Beaumont and Fletcher are the only English writers who regularly adopted the system. In Paris it may be said to be wellnigh the rule—unassisted composition being the exception. One writer conceives an "idea"—a glimmering of plot and characters dawns on him—and this he communicates to a brother author, who develops the idea, and writes the work; then a third writer revises, alters, curtails, or expands the manuscript, attaching his name to it if his name is popular and will sell the work; and when it appears—whether drama or novel—the proceeds are equitably divided.

Of this curious system we propose to present some details before we end this article. At present we shall speak of a man who had the reputation of being the "king of collaboration," and give an account of the means he is said to have resorted to in order to swell the list of volumes bearing his name as their author. This personage was M. Alexandre Dumas, senior, whose portentous production of books in every department of literature began, about the year 1844, to astonish the world, and occasion evident irritation to his brother authors and rivals. At a given signal, a great literary deluge seemed to sweep over Europe. Countless volumes, bearing the name of Alexandre Dumas—romances, novels, biographies, memoirs, *causeries*, traveling *impressions*, and other productions in every field of literature—greeted the eye at every turn; and on one of the Parisian boulevards a bookstore was opened for the sale of no other works than those of this one gigantic producer. There was unquestionable *charlatanerie* in this; but, singularly enough, the public appetite for the Dumas article of literature seemed keen and insatiable. Each new work bearing his name met with an enthusiastic reception; and if he published, as he often did, something flat and tedious, he followed it immediately with a new candidate for public favor, sparkling with wit and full of vigor.

When this enormous literary production had reached a certain point there was a sudden outcry, and Dumas's disgusted competitors for public favor opened broadsides on him, in the shape of pamphlets and newspaper articles, in which it was asserted that he was physically incapable of doing the simple penwork of the books bearing his name—the conclusion being, of course, that he published as his own volumes which he had never written. These charges at last culminated in a yellow-covered pamphlet by a certain M. Eugène de Mirecourt—a coarse, bitter, and insulting, but very dull, *brochure*—in which the whole mystery of this tremendous production professed

to be revealed. It was a new and hitherto unheard-of chapter in the "curiosities of literature." M. Alexandre Dumas, it seemed—according to M. Eugène de Mircourt—had conceived a strange and daring project. In consequence of being eaten up by vanity, and a discreditable craving for money, he had racked his brains to discover some device by which he might gratify both these low passions—for some means of astonishing the public by an endless production of books, of supplying the publishers with endless manuscripts, resulting in grand pecuniary receipts; and to so great an inventor the plan soon presented itself. He must have assistants. Man was a machine which could only move with a certain velocity. It required, in spite of everything, a certain time to produce a volume, since in each twenty-four hours only a certain amount of manuscript could be "turned out" by the most rapid penman. Why not, then, have many penmen? Why not recruit a corps of bright young authors without reputation in letters, but with brains and industry? Why not take these into his pay, and organize a grand literary machine, in which each individual should be a wheel, a cog, or a running-band, while the mainspring to set all in motion, the great "regulator" to keep all in order, should be the master-mind, the controlling genius of himself, Alexandre Dumas? Such, his critic said, had been the origin of the great secret underground "Novel-Factory of Alexandre Dumas and Company," situated at St.-Germain, near Paris. Here Dumas assembled his gang. They consisted of brilliant young writers, who were in every way his own superiors—only some hostile fate had kept them in obscurity. For some inscrutable reason the publishers, blind to their merit, had refused to purchase their writings; and it was left for him (M. Dumas) to discern their genius, and give these struggling aspirants an opportunity to show their real value. They had the brains, and he the popular name. What more reasonable than to combine the two—to set the brains to work, and sign the result with the magical name of "Alexandre Dumas?" This, according to M. Eugène de Mircourt, his critic, was what Dumas now proceeded to do.

His plan stopped at nothing. The Dumas article, or at least an article bearing the trademark "Alex. Dumas," must be produced in quantities sufficient to supply the public demand. This could not even be accomplished by "watering" the wondrous vintage of his own brain, by composing a certain portion of each volume, and leaving his assistants to fill in. He devised the daring scheme of simply giving the Dumas flavor to the product of other vineyards, and stamping on the cork the Dumas seal. And soon the work began. Headed by the great literary counterfeits, the secret gang proceeded to their nefarious toil. First the unresting brain of the great chief conceived an idea, the plot and characters, say, of a drama or a romance. The next step was to lay it before his assistants, who immediately set to work, like obedient machines, and turned out the requisite amount of manuscript. This the master-workman, or director, carefully examined—if he had time to do so, which was not always the case; and, if he approved it, he retouched it here and there, adding or

striking out a word, or a sentence, dotted the i's, crossed the t's, and signed it "Alexandre Dumas." From the dark subterranean workshop the manuscript was then transferred to Paris. The smiling and magnificent M. Alexandre Dumas appeared at the Comédie Française or the Porte St.-Martin theatre with the announcement that he had just written a new drama which he wished to offer the directors; or at the office of the *Sicde* or other journal, where the editor was informed that he had just completed a thrilling romance, which might be obtained for a consideration; and drama or romance was sure to be welcomed, the signature "Alexandre Dumas" being amply sufficient. The manuscript was thus sold; Dumas pocketed tens of thousands of francs, and his popularity went on steadily increasing; meanwhile the poor unknown assistants in the St.-Germain "Novel-Factory" were obliged to conceal their part in the work, and humbly accept the pittance which the great man tossed to them. Such was M. de Mircourt's grave statement. He added that Dumas proceeded to greater lengths still, and often purchased the manuscripts of needy young authors, signed them *without even reading them*, and sold them as his own. The object of the writer was evidently to crush his opponent, and he seemed to think that he could not make his blows too heavy.

This amusing scandal is repeated here to illustrate the danger of the system of collaboration to an author's reputation. M. Eugène de Mircourt's portrait was a caricature. His statements were untrue, and he was not even entitled to the name signed to them. He was M. Jacquot, from the village of Mircourt, who, coming up to Paris, dropped his own name and took that of his birthplace. Having offered to work in collaboration with Dumas, who treated the proposal with indifference, M. Jacquot flew into a rage, wrote his attack, borrowed money to print it, and was sentenced to imprisonment for libel for doing so. Another hostile critic of Dumas spoke of its "terrible candor," a phrase which, having perused the coarse and stupid little brochure, we regard as rather absurd. But all Paris read it—for scandal is dear to that mercurial population—and Dumas throughout his entire literary career felt the bad effects of these charges, which, although unjust, were fairly attributable to his adoption of the system of working in association or collaboration—either phrase is used—with others.

From this caricature of the collaboration system as pursued by Dumas, let us come to the actual course really adopted by himself and others. The plain object in view was to "combine forces." One author's powers of invention might far exceed his powers of composition; while another might have a great facility in composing, but little or no imagination. To unite these faculties seems to have been the object of collaboration. One writer conceived the subject of a play or novel, and suggested it to a brother author. They talked it over, turned it about in every point of view, agreed upon the part that each should take in it, and then set to work. Either this was the case, or a popular author with more contracts on his hands than he could comply with unassisted called to his aid some literary *confrère*, who

filled in the words, with manuscript written after the main author's suggestions; a portion of the proceeds being relinquished to him as a just remuneration of his labor. It was not considered that in these instances an author was to be blamed for signing his own name alone to the work. Scribe, the popular dramatist, never attempted to conceal the fact that the innumerable plays published under his name were, in part, the production of others; and dedicated a collected edition of his writings frankly "to his collaborators." Dumas, in the same manner, made no secret of the assistance he had had in the composition of a number of his works—he only denied that this assistance had been material; and Jules Janin, who was well acquainted with him, derided the idea that any man living except the witty old quaddron could have put the peculiar "stamp of the lion's paw" on his works. The collaboration was often, indeed, publicly acknowledged. Both names were placed upon the title-page of the book or drama, or it was announced to be the work of M. So-and-so, "in association with" M. So-and-so, or with an unknown monsieur designated by * * *. This entitled the named or unnamed associate to a part of the proceeds of a play—it was only necessary to report his name at the theatre as a collaborator, which gave him a legal claim to a portion of the receipts. There was even a wheel within a wheel in this curious system. Persons to whom the author owed money were sometimes thus reported as collaborators, although they had taken no part whatever in the work. M. Maquet says that this was done once by Dumas in his case. The latter wished to give him a lien on the proceeds of a drama to pay a sum of money due him, and reported Maquet as his assistant in a play he had never seen. Such was the system; and it resulted often in endless confusion and uncertainty. If the two authors quarreled, crimination and recrimination ensued; and when a popular and an unknown writer were associated, it was the popular author who had the worst of the quarrel. The friends of the unknown cried aloud that he was the real author, and entitled to all the merit. Whereupon the friends of the popular author retorted that but for him the play or romance would have possessed no merit whatever. As the world prefers pulling down established reputations, however, it was the latter who suffered, as we have seen, in such discussions, and there was often no possibility of proving his just claim. Manuscripts were frequently dictated to amanuenses; the handwriting, therefore, gave no clue to the real authorship; hence, endless accusations, denials, rejoinders, and surrejoinders, and a new chapter in the "Quarrels of Authors."

Dumas—whom we shall continue to take as the best example of the working of this bad system—was led to adopt it, apparently, by his great vanity, and the large pecuniary proceeds, which had become necessary to a person of his profuse style of living. He even found that it was beyond his ability to supply the demand for works from his pen, and naturally conceived the idea of working in collaboration. This he proceeded to do, in almost every form, and he seems to have had more or less assistance in almost all of his romances and dramas.

He speaks, himself, of this collaboration in "The Three Guardsmen" and the "Count of Monte Cristo," two of his best works; and, although it seems plain that the aid he received was often next to nothing in importance, and that the real attraction of these works was due solely to himself, the fact remains that they were written in collaboration with others who executed a part of them, in accordance with his suggestions. Another habit of the author was to revise, alter, curtail, expand—often rewrite nearly throughout—the manuscripts of other people. Often the work thus recast was essentially a new production, stamped with the peculiar genius of the reviser; and to sign his name to it as author was not really a falsehood. Dumas frankly confessed his habit of writing in collaboration with others. His defense was, that he furnished the material part of every book or drama to which he signed his name; and he really seems to have resorted to the assistance of others in the execution rather than the conception of his works. His own invention was of the first order, and his dramatic faculty remarkable. The production of such huge piles of manuscript seems to have been the great stumbling-block in his way; and what he underwent from attempting to remove this stumbling-block by collaboration he tells himself in a rueful passage of one of his amusing *causeries*:

"There is one object," he says, "which I regard with more suspicion than all others—the roll of paper my servant brings me with a card, or which I find on my desk when I return from walking out. A roll of paper is a manuscript. A manuscript is a romance or a drama. A romance or a drama means three months of squabbles and one more enemy. All the worry of my life has sprung from my collaborators in romances and dramas. If I had had no collaborators I should have written ten plays and a hundred volumes less than I have written; but then I should have lived the sweetest life ever lived by a dramatist or a romance-writer.

"Collaboration in my dramas has cost me two duels; collaboration in my romances has embroiled me with a man whom I regarded as my best friend—the loss of whose friendship I shall regret all my life. It is vain to promise yourself that you will never again work in collaboration: when once you have placed your name beside that of another, the thing becomes impossible. In collaboration, one of the two—the stronger—is always the dupe. He commences by inventing and mapping out the romance or the drama—has his own conception of it—and is naturally dissatisfied with the work when his feebler assistant brings him the manuscript. 'Well, leave it with me,' he says, 'I will revise it.' And, some day, he takes his pen to revise it. He begins by correcting words which seem to him improper, or out of place; then he strikes out whole sentences, replacing them with others; then he cancels an entire page; then he tears up the manuscript, and throws it into the fire, saying, 'I shall have to rewrite the whole of this.'

"And he proceeds to do so, recomposing the entire work, with all the more fatigue that he works on a subject which is not his own, and which—though he has made it and

then made it over again by himself—still remains eternally inferior to the book or the drama which it would have proved had the entire creation and execution been his own. And then for this toil—to him a double labor—he receives but half the reward, and the world cries out:

"You know this successful drama, or romance; it was taken to So-and-so by the real writer, and So-and-so only signed it! This is the way poor young writers are oppressed and forced to pass under the Caudine forks of the great authors before they can reach the public!"

"And when a lady brings a tangle of romance or drama, the case is even worse. She is a young girl obliged to write to support her mother—a young widow compelled to provide bread for her children. At first you refuse—then come prayers: 'You will preserve a whole family—they will be eternally grateful.' You cannot utter a brutal 'No!' to all this—you try to find excuses—they are all met with the logic of want—and you yield. You exact a promise that your name shall not appear in connection with the play or volume—you set to work, often against the grain, for the manuscript is bad, and it costs you all the trouble in the world to make a mediocre affair of it; and then, three weeks afterward, you read in the journals: 'Monsieur So-and-so has just finished a play, in collaboration with Madame So-and-so, which is destined for the Théâtre Français, or the Odéon, or Porte St.-Martin.' Then you find yourself compelled to contradict the statement—the lady continues, nevertheless, to maintain that you worked in *collaboration with her*—and you are dragged into an unending controversy."

Such is the comic picture of the evils of collaboration, drawn by one who had gained his information by woful experience. His gay wit gilds the sketch; but working in association had been a serious matter with him. It cost him a duel with a young M. Gaillardet, who claimed the sole authorship of the "Tour de Nesle," a play which Dumas had rewritten; and the Parisian public never ceased to believe that much of his literary fame was due to others—a very galling circumstance to a man of his great vanity.

There is no reason to believe that the evils of collaboration set forth in the above extract are overstated—indeed, an instance where Dumas was treated in the precise manner indicated in the supposed case of the lady writer is given elsewhere in the journal from which the extract is taken.¹ The most interesting feature of the passage here quoted, however, is the light which it throws on one of the methods of collaboration. The more skillful and popular of the two authors, we are told, "commences by inventing and mapping out the romance or the drama, and is naturally dissatisfied when his feebler assistant brings him the manuscript." The "feebler assistant" is, therefore, the one who does the pen-work. The abler of the two merely furnishes the idea, brings to the production only his skill in dra-

matic conception, and knowledge of what will please the public taste; and after this simple unearthing of the "idea" another is left to run it down, doing the mere drudgery of reducing it to shape in the form of a salable manuscript.

Of this eccentric system, which is fairly entitled to a place in the "Curiosities of Literature," each must form his own opinion. It was persistently denounced as "literary mercantilism," and no doubt the authors had a keen eye to the pecuniary proceeds. But, then, some of the most honorable writers of France, who could not be charged with greed, made use of it—among the rest, as we have said, M. Scribe, the popular, wealthy, and highly-estimable playwright, and many others of irreproachable character. We must, therefore, conclude that there is something in the French character inducing the authors of that country to associate themselves together in the chase after "ideas," each taking his part in the headlong pursuit, and sharing the game.

A last reflection presents itself: what is the probable result of such a system, if generally adopted, on the literature of a country? It must, we think, be evil. It is inconceivable that two or more dramatists, writing in collaboration, would ever have produced "Hamlet," or "As You Like It," the masterpieces of tragedy and comedy of our literature, and no portion of a book or a play can safely be left to an inferior writer, any more than any part of a picture by one of the masters could have been left, one would suppose, to a tyro. Thackeray, commenting upon this very instance of collaboration in Dumas's case, humorously defends him on the ground that there are certain parts of every literary work which merely connect the passages of real interest, and that these may be left to some intelligent young assistant. Does the reader recall this amusing plea? Referring to the immense list of Dumas's productions, Thackeray says: "To what a series of splendid entertainments he has treated me! Where does he find the money for these prodigious feasts? They say that all the works bearing Dumas's name are not written by him. Well? Does not the chief cook have *aides* under him? . . . For myself, being also *du métier*, I confess I would often like to have a competent, respectable, and rapid clerk for the business part of my novels, and on his arrival at eleven o'clock would say, 'Mr. Jones, if you please, the archbishop must die this morning in about five pages. Turn to article "Dropsy" (or what you will) in Encyclopædia. Take care there are no medical blunders in his death. Group his daughters, physicians, and chaplains, around him. Color in with local coloring, etc., etc.' . . . Jones (an intelligent young man) examines the medical, historical, topographical books necessary; his chief points out to him, in Jeremy Taylor, a few remarks such as might befit a dear old archbishop departing this life. When I come back to dress for dinner, the archbishop is dead on my table in five pages, medicine, topography, theology, all right, and Jones has gone home to his family some hours. . . . There is a great deal of carpenter's and joiner's work in novels, which surely a smart professional hand might supply. . . . Ask me, indeed, to pass a robber under a bed, to

¹ D'Artagnan, *Journal d'Alexandre Dumas*, February 22, 1868. This was a tri-weekly paper published by Dumas in his last days. It had, been preceded by two other similar publications, *Le Mousquetaire* and *Monte Cristo*.

hide a will which shall be forthcoming in due season, or, at my time of life, to write a namby-pamby love-conversation between Emily and Lord Arthur! I feel ashamed of myself. . . . I blush so, though quite alone in my study, that you would fancy I was going off in an apoplexy!"

But this great satirist knew better, and was only indulging a humorous and whimsical fancy. Works of very great merit have been produced by a species of collaboration not altogether different from that here suggested in a spirit of fun, but it is certain that if they had been the production of a single writer they would have possessed far greater excellence, and brought far more fame to the author who both conceived and executed them.

J. E. C.

ABOUT LONDON.

XI.

SEVEN DIALS.

IN a preceding article of this series I ventured to express the opinion that it was not for individuals to define a standard by which the human happiness of their fellows was to be measured, seeing that happiness itself varied just as the conditions of life vary. To illustrate my meaning more clearly, let me relate some reminiscences of a visit I paid not long ago to one of the most poverty-stricken districts of London. On the boundaries of Clerkenwell, just where that historic suburb, if one may still be allowed to call it so, encroaches upon the confines of Farringdon Street, is a most unsavory locality, made up of a network of courts and alleys, whose existence has been for years a standing reproach and shame to the municipal government of the English capital. The notorious "Frying-pan Alley" belongs to this district, and under the guidance of one of the church-wardens of the parish of Clerkenwell I was enabled, in the course of a long day's work, to very thoroughly examine into the daily life of the people who make this same alley their home. Unfortunately, I have no figures by me to supply dimensions of rooms, cubic capacity of air-supply, and so on; but, when I say that it could be scarcely possible to conceive anything more intensely wretched than was the condition of the houses and their surroundings in this alley, I am conscious of but merely stating the bare truth. With very little effort, with arms outstretched, one might have spanned the space between the opposite walls of the court, and it seemed as if friendlily-disposed opposite neighbors had but to lean out of window to shake hands together from their respective tenements. Of privacy in any sense of the word there was absolutely none. In fact, from first to last, from end to end, from corner to corner, Frying-pan Alley was about as hideously disgusting a place for human beings to dwell in as ever I have had the misfortune to put my feet into. Through the genial courtesy of a friendly coster-monger who held the proud but unenviable reputation of being the oldest inhabitant of the alley, I was allowed to look over one of its houses, selected promiscuously from the lot. I found

the down-stairs apartment given over to a donkey and half a dozen ducks; the sleeping-room above was occupied by a family, husband, wife, and two children, who were thus breathing the sufficiently poisonous atmosphere of the alley itself, supercharged with exhalations from the stable-filth below, in which, by-the-way, I was told that an itinerant coster-monger occasionally reveled in loving companionship with his "moke." The gutters which ran beneath the windows on either side of the court reeked of vegetable refuse; a water-butts sucking up pestiferous miasma from a dirt-heap hardly served to supply the whole court with water for drinking and other purposes; and, in point of sanitary arrangements of any kind, Frying-pan Alley was as disgracefully deficient as if it had been designed, built, and furnished, by an association of pigs for an incoming colony of brother swine. The feeling uppermost in my mind after viewing the place was, that the landlord who derived rental from it ought to be hanged, and that the parish vestry under whose ill-government it was permitted longer to exist should be condemned to dwell in it until typhus and typhoid had rendered it necessary to elect an entirely new body of vestry-men, better versed in the meaning of the words humanity, decency, and duty.

I shall be scarcely believed, however, when I say that, notwithstanding the disgusting state of things in Frying-pan Alley, which I have but imperfectly related, its inhabitants thrive well—were contented and happy. Indeed, so contented were they with their lot, and with the place in which their lines had been cast in London, that I was personally appealed to, on my honor, to declare that I was not an emissary of the Metropolitan Board of Works, or any like public authority charged with the duty of advising upon the practicability of sweeping this alley away. My friend the coster-monger followed me closely after I had left the court, and, over a pot of stout and a bit of "bacca" which I took the liberty to offer him at a neighboring house of refreshment, spoke his mind pretty freely upon "the bobbery as was now being kicked up about the alley, and sich-like places, all along o' nothin'," as he expressed it. "You see, guv'nor," said he, between whiffs of the pipe and "pulls" at the stout—"you see, guv'nor, what the ——— does them people know about the place as doesn't live in it? Answer me that! What the ——— does I know about your'n crib when I ain't been nigh it? The alley is just as 'ealthy as any round London, and I'm ——— if it ain't a ——— shame to come a-worriting us about here when we ain't a-arming o' nobody." In terms almost of earnest pride the coster-monger dwelt upon the morality of the alley and its inhabitants: "That's the wust of you gents," said he: "you're always a-thinkin' we are a dashed lot of thieves. I tell you it's a dashed lie! We never sees a 'bobby's' nose inside o' the place; and there ain't been nobody 'wanted' there, not since I've been a-livin' in it—leastwise except for a bit of a spree now and then. And talk about 'ealth,' he broke off—"I'll be dashed if we arn't a dashed sight 'ealthier down here than some of them cadgers up at the West End. When the

cholera was 'ereabouts in '54 we 'ud a fewer pussons killed by it in the alley than in arf o' your big streets up nigh there."

This coster-monger, who relished his mode of life, may be taken as an exponent of the views of Frying-pan Alley on the subject of every-day happiness. He would not have exchanged his dirty den in the court for the sunniest of parlors in the western suburbs. He had got used to the atmosphere of the alley, loved the ways of its inhabitants, and by right of long habitation had come to be looked up to as a sort of authority on matters generally. Had he moved away into one of Peabody's wholesome tenements, he would have been out of his element at once, and would have sunk to the level of a nobody. Worse still, he would have been separated from the companionship of his donkey, an affliction he was not disposed to submit to except under very extreme pressure and unavoidable circumstances. The coster-monger enjoyed life after his fashion; was on terms of social intercourse with most of his neighbors; did a thriving business with truck and 'barrow, in hawking 'winkles, wheelks, dried fish, and such-like salable commodities; and, as London coster-mongers go, was a fair representative of his class, hard-working, thrifty, and honest, albeit his tongue was of the very foulest. This man declared to me that nothing short of police compulsion should make him give up his "crib" in the alley. When he was driven out he would level a mighty curse at the heads of the Metropolitan Board of Works who had wrought such mischief upon him and his, by which latter, it is to be supposed, he meant his donkey, seeing that a worthy trait in a London coster-monger's character is unbounded affection for this generally hard-used and much-abused animal.

Recently, I have been studying life in the Seven Dials, a district of London of most evil repute, and I am more persuaded than ever that the poor are as well provided with happiness in this world as the rich. I fancy I hear my friend the critic say, "But what, according to your theory, does constitute human happiness?" He has my reply at the beginning of this paper. If he would wish to have it enlarged upon, I would desire to ask him in return: Does wealth insure happiness? Supposing that I am a millionaire, keep a French cook, and thoroughly enjoy a good dinner: I can only eat so many oysters before soup, can only drink so much wine, can only pick so much of the breast of a partridge, can only digest so many spoonfuls of Nesselrode pudding. My friend the coster-monger equally enjoys a good meal. His digestion is quite as hearty as my own. But he, also, can only manage one pair of sheep's trotters, can only drink one quart of "stout" at a sitting, can only "put away" one average-sized penny-roll. Both of us become dyspeptics in time, and away flies all our happiness. We stand in the world equal, as regards happiness, until we leave it. Take another case widely different from the foregoing. I happen to know a man who is a most indefatigable and earnest worker in the library of the British Museum. He has published several works, fairly well known to the public at large. I took the liberty of asking him one day whether his

books paid him anything. He was quite indignant at the idea of deriving emolument from writing books. "My dear fellow," said he, "money is not everything in this world. I should be indignant with myself if I wrote for money." His ambition, clearly, was to be thought a great author. The height of happiness with him was to enter a room and to overhear Smith say to Jones: "Jones, do you see that man with the 'gig-lamps?' That's Delver, the author of the celebrated 'Reprints.'" And as Delver walks up and down the London streets he fancies, poor fellow! that every one passing him is nudging a friend and saying, "By Jove, there's the great Delver!" Alas for the standard of Delver's happiness! No one knows him outside of his own immediate circle of book-worms. The "Seven Dials Game-cock," who has a rare power of wielding the "gloves," and has been known to smash the bridge of the nose of his man, and to "get on" to his opponent's eye at first blow of his "right," has far more reputation outside of his own circle of acquaintance than has Delver. Fame is just as dear to the "Game-cock" of Seven Dials as it is to the book-worm of the Museum Library. Both find happiness in contemplating its coming; the one from the bar-parlor of a gin-palace, the other from the best-appointed library in the world. But let us look through the Seven Dials and see how the poor fare there.

Seven Dials is not a place I myself should choose for a local habitation, still it has its advantages. It is very central, as people say, and that in London is a great thing. Folk who live in it are "on the spot," by which is meant that in five minutes they can reach any of the great thoroughfares of London, which to a London thief, for instance, is an immense advantage. I am not to be understood, however, as saying that Seven Dials is populated with thieves; on the contrary, there are many most hard-working artisans' families to be found in the district, besides laborers of every class who honestly earn their daily bread.

Geographically, the Seven Dials lies about half-way between Charing Cross and Tottenham-Court Road, and is so called because seven streets here converge to a centre space where in days gone by stood a pillar adorned with seven dial-faces. There is more air, I think, in the Dials than in the neighborhood of Frying-pan Alley, though there is plenty of room for sanitary improvement in both places. Courts and alleys are thick as peas in a pod in the seven converging streets, and in these sties vegetate the very poor, leading pretty much the same sort of life as the poor lead in most great cities. Women and men loiter about the public-houses, which are the curse of the neighborhood; children wallow in the gutters, and seem to enjoy it; coster-mongers and open-air vendors of every description of good lungs bellow to passers-by to buy! buy! buy! whatever may happen to lie on their trucks; occasionally there is a good deal of fighting between females, much drunkenness about the alley-openings, and some severe skirmishing with the "bobbies" in the streets. On the whole, however, Seven Dials leads a pretty regular and decent sort of life, and has its fair share of happiness, and, if it is not pos-

sessed of much money, manages to rub along, and fare very well upon little. And I am bound to say that I think no better nor worse of Seven Dials because it happens to be Seven Dials. Its reputation is a very evil one, I'll admit, but I have not been able to ascertain that this is borne on just foundation. I know very well that I would sooner sleep a night in the Seven Dials than pass an hour in the Minorities; and I know equally well that "Carrotty Sall" of the former is a perfect angel compared to "Blear-eyed Suke" of the latter district. I am quite prepared to go into an alley in the Seven Dials without that excellent guardian of the London peace, a "bobby," at my elbow; but in the Minorities I should expect to be dragged, robbed, and pitched into the Thames, were I to stir into an alley thereabouts without one.

What struck me as most odd about the seven converging streets of the Dials was the heterogeneous character of the business done in them. One would have supposed that, in the midst of the very poor, trades particularly adapted to the wants of the poor could be carried on; but in the Dials we see nothing of the kind. On the contrary, most of the business there transacted pertains to the wants of the very rich. And, if the reader smiles incredulously at this statement, let me read to him a letter which I copied from one displayed in a golden framing in the windows of one of the chief tradesmen of one of the seven converging streets. It runs thus: "MARLBOROUGH HOUSE. DEAR SIR: The Prince of Wales would like to see you between four and five o'clock. (Signed) — To MR. ISAACS." Mr. Isaacs happens to be a great authority on bull-dogs. Nay, more, he is the greatest authority (with the solitary exception, perhaps, of Mr. Bill George, of Kensal Green) in London on the merits of dogs of this species. He has a choice collection of these charming animals displayed in closely-wired cages in his shop-windows and underneath them, and can discover to you the loveliness of a bull-pup better than any Londoner I know. Mr. Isaacs is particularly proud of his interview with the Prince of Wales, and as evidence of his loyalty to the reigning family of Britain has expended much money, and more paint, in embellishing his house-front with a magnificent advertisement of the fact that he is "to the royal family" — what? I don't precisely know. It would be scarcely fair to hazard a guess, seeing that Mr. Isaacs sells quite as many bullfinches as he does bull-pups. But what interest on earth, I may ask, can Seven Dials have in be-crowned harness? Yet one of the seven converging streets does a very excellent business in this article of princely luxury, as it likewise does in the sale of "fly" rods and other equipments of fishing, which one would have thought were mostly to be purchased off the aristocratic district of Piccadilly. Cheap picture-frames are to be purchased in Seven Dials in great variety, and in the matter of "chromos" it displays much good taste.

As a family man I found a very great deal in this unaristocratic London district to interest me. Clothes were to be had there for a mere song. I found that a capital straw hat was to be purchased for eightpence, which made me wince at the exorbitant charges of

my own hatter; towels were to be had in excellent material—I have one hanging on the chair at my side now—for sixpence three-farthings the towel; and a pair of uncommonly serviceable-looking corduroy pants I might have bought for the trifling sum of nine shillings and sixpence, most excellent wear, by-the-way, for growing and rough-playing lads. Articles of housekeeping were proportionately cheap, which made me feel that the Seven Dials poor have sundry and great advantages over myself. I could have purchased a cup and saucer of good and honest Staffordshire ware for twopence halfpenny, and a teapot of block-tin, than which no other teapot of modern make "draws" more admirably, or succeeds better in extracting the essence of the tea, for a small sum of fifteen pence. Food was, as the auctioneers say, simply going for the asking. Mackerel which would cost me eightpence apiece at the door, because I'm fool enough to live in an aristocratic London suburb, cost your dweller in Seven Dials but twopence apiece. And I beg leave to state that in the matter of mackerel the poor of the Seven Dials were, according to my observation, far better served than myself. Their mackerel were plumper and fresher, and were better looking in every way. A long-tailed, decapod crustacean, of which I am particularly fond, is the shrimp, an admirable little denizen of the sea, most toothsome and appetizing when served in the shape of hot sauce, with turbot or salmon. As I am in the habit of buying these small crustaceans of my own most extortionate fish-monger, I am pretty well able to judge of the ruling prices in shrimps outside of the Seven Dials. Sixpence a pint is what I pay, and think myself fortunate in buying shrimps fresh even at that. In Seven Dials—I made most special note of this, being appealed to by my own appetite at the moment—shrimps, almost approaching to prawns in breadth of body, were to be had for twopence the pint, with the measure, too, well shaken down. In the price of butcher's meat Seven Dials will more than favorably compare with any other poor district of London. I don't mean to say that sirloin-steak is to be had here at less price, or in better quality, than elsewhere; but in less expensive joints the poor of the Seven Dials are infinitely better served than the poor of the outside London districts. In fact, in the matter of food, I pledge my word that I found the Seven Dials people quite as well served as myself, with this slight difference, that they were able to procure theirs at just about half the price at which I find it able to procure mine.

In a variety of ways the dwellers in the Dials seemed to me to be exceptionally well off. Medical advice, for instance, was retailed to them for a mere trifle, whereas with me it amounts to a very serious item in the year's expenditure. A chemist who displayed his diploma from the Apothecaries' Society, properly framed, in the window, advertised that a surgeon attended at his shop daily who was prepared to furnish "the poor" with medicine and advice, both, for sixpence. A dentist was willing to extract teeth with skill at the following low rates: "To the working-classes one shilling per tooth, to the poor before 10 A. M. gratuitous." "Easy shaving,"

which must be admitted by most men to be a great and not easily-to-be-procured luxury, was to be had in the Dials at one penny the shave. "Hair-cutting and brushing by machinery" was also advertised at the low rate of a penny. In the way of literature the Dials has nothing to complain of. I purchased there a clearly-printed and altogether well gotten-up paper edition of the "Fables of Æsop" for the trifling sum of a penny, and in explaining them to a little girl have experienced quite as much pleasure as if I had been reading from the most brilliantly-annotated edition ever issued from the University Press. Popular publications were to be had at very trifling outlay. And I noticed with peculiar pleasure at the leading news-venders in the place the beginnings of a good "lending-out" library, entirely freed from anything like pernicious or improper literature, and the volumes in which were to be hired out at the trifling outlay of a penny the volume.

In my walk through the Seven Dials I failed to see that its inhabitants were worse off in the way of happiness than multitudes of their more prosperous neighbors. They were far better off in some respects than many of the people dwelling around them; and, although their houses were not of the most inviting kind, still they managed to live in them, and were not less healthy because they did live in them than are the lords and ladies choosing to dwell in the mansions around the neighborhood of Eaton Square.

CHARLES E. PASCOE.

AN EXCURSION INTO CLOUDLAND.

IN APPLETONS' JOURNAL for December 18, 1875, the Miscellany contains some quotations from a beautiful but fanciful dissertation on clouds and their erratic habits, as to which, perhaps, some additional observations from the note-book of one who has studied them in the country, lying on the grass for long and lay hours and scanning their movements and transformations, besides having been ballooning among them on several occasions, with Mr. Lowe, the eminent professor of aeronautics, may be of interest to the general reader. One of the problems which the author of the dissertation, condensed for the Miscellany from *Blackwood*, seems to regard as not yet solved, is how it happens that, being composed of water, which is eight hundred and sixteen times heavier than air, clouds manage to get lifted up into the air, and to stop there comfortably, apparently without an effort, and to travel thousands of miles at all sorts of paces, just as if it were quite natural and proper that they should be there. Nobody can tell, he says. Of all the explanations that have been proposed, not one, to his mind, can be regarded as sufficient. He then proceeds to intimate that the ordinary laws of attraction and gravitation appear to be suspended, or at least inoperative, in this instance, and more to the same effect. His view is that, if they behaved like everything else in Nature, they would never ascend at all; after which he discusses and dismisses in detail the theory that clouds are forced upward by rising currents of heated

air—the hypothesis that, in some unknown manner, they are held in position by electrical agencies, and the floating scientific vagary that the water-molecules contain obscure internal heat which by expansion makes them lighter than the circumambient atmosphere, and converts them in that way into so many *montgolfières*.

The true solution of this difficulty is one of the most comprehensible things in the world, and lies within the circle of every-day observation. Did you ever see steam escaping from the nozzle of a boiling teakettle? Did you ever observe it rising in a columnar volume from a pot of boiling water? I remember once, when I was a mere boy, and not habitually addicted to scientific experiments, manufacturing a wind-wheel of oiled silk, and adapting it to the nozzle of the teakettle, in such a manner as to be able to estimate the lifting force of the ascending column of steam. The experiment was a simple one, and consisted in hanging a small lead weight, from the disused works of an old-fashioned clock, to the axis on which the wind-wheel revolved. The result of the calculation was, that the lifting force of a free column of steam one foot in diameter was about one-twentieth of an ounce—which, of course, although wanting in the accuracy applied in such experiments by persons more accustomed to such investigations than I then was, represented the difference in weight between vapor and air; so that, although, in its natural state, water is many hundred times heavier than air, in its diffused state as vapor it is, on the other hand, somewhat lighter than the medium in which it floats. Now, an insensible evaporation (or conversion into vapor), such as takes place in the fabrication of clouds from the raw material, is undoubtedly considerably lighter than ordinary steam; while such a perceptible evaporation as is usually styled a fog is of about the same weight as air, and rather heavier than steam. As the evaporation ascends into the higher strata of the atmosphere it gathers into visible cloud-masses, by partial condensation, and, having risen to an altitude where its weight is equal to that of the circumambient and more highly-rarefied atmosphere, the cloud hangs suspended, or is wafted about by the wind, traveling, like an elfin ship, to and fro in apparent nothingness.

In our latitude, the region of perpetual frost is about ten thousand feet from the surface. This temperature necessarily renders the products of evaporation visible as clouds. The law of cloud-formation is thus very simple. The capacity of the air to absorb moisture doubles with every advance in temperature of twenty-five degrees. In other words, the heated air at the surface is capable of absorbing a certain quantity of water. Having done so, and doing so continually of a summer's day, the heated air ascends in currents, and is continually replaced by the colder superincumbent stratum. As it cools little by little, while ascending, it sets free a small portion of its absorbed moisture as a highly-diffused form of vapor; and thus come those barely visible clouds that one sometimes observes, stealing about like spirits, in comparatively low strata of the atmosphere. At a greater altitude, with continually decreasing

heat, at varying degrees, all types of clouds, from the fleecy to the black and impending, are formed. When the surface air has been highly heated, as on a July day, the ascent is correspondingly more rapid, hence higher; black masses are soon generated, and fall in a rapid shower. Or, when the heat is still greater, the ascent of the lower heated strata, saturated with moisture, is higher and more rapid still; the region of perpetual frost receives the saturated atmosphere, condenses and freezes its moisture, and precipitates it as a shower of hail. But, in ordinary weather, the region of clouds is considerably below that of frost, and the equilibrium between heat and cold maintains them in tolerable permanence, the temperature being low enough to render the absorbed moisture visible, but not low enough to disengage it and let it drop as rain. A cloud, therefore, is not a simple body of aqueous vapor floating in the air like a volume of steam; it is a compound body of air and water, the latter retained by the former by absorption. The darker a cloud, the less the amount of air in its composition, and the closer its resemblance to simple steam. A fog is a mass of unabsorbed surface vapor.

A fog fails to ascend above the lower strata, because it is too heavy; but fogs (or visible vapors) vary so considerably in gravity that their distance from the surface is subject to considerable variation. I have seen them lying low in valleys by moonlight, or, by daylight, gliding spectre-like up the acclivities of hills, until they turbaned their rocky tops about with a whitish-gray wreath, through which the trees looked like arabesque spectra of the real trees in the valleys below. A fog creeps and crawls upward along the acclivity of a mountain, until it attains a height above the general surface of the earth, at which its weight, the gravity of the surrounding atmosphere, and the special attraction of the elevated mass of the mountain, are in equilibrium; when it rests, until the heat of the sun evaporates it anew, or the withdrawal of the vaporizing beam and the consequent condensation cause it to fall as dew or evening mist. And, ah! that morning mist, white, fleecy, and almost intangible, that lies down deep in valleys of a September dawn, enveloping the gray and red farmhouses with a cloudland indefiniteness, and hanging in fragments to the trees, which stand like bearded Nestors nodding to and fro in the wind—a dew that did not quite come down—an evening mist arrested in descending!

As I write, a long-dormant memory steals out from its lonesome cranny in the worried brain, and, by some strange process of psychic transmutation, presents itself as a vision. A gray, old house, huge, battered, and ante-Revolutionary, with a column of smoke ascending like a plume from the apex of the roof, stands lonely on a shelf of land half-way up the league-long acclivity of a New England hill, and looks grimly down into the valley on the east, through which run a railroad and a river past a couple of red farmhouses—one-story structures—the windows of which are shaded with *jalousies*. The old house stands with its gable-end to the east—two stories tall—like a goblin with its hair parted in the middle. From one of its eastern windows I have gazed

for many a morning at the fog in the valley below, the river visible in glimpses, while the railway-train rushed through, like a terrific serpent in mailed sections, rumbling and jarring the earth, but only visible here and there through rifts in the mist. In its way, there is a romance about fog that there is not about clouds. They are supra-terrestrial in their wanderings; but a morning fog is as if a world of weirdly-fashioned creations, peopled with semi-visible beings, came out of the earth of a night and descended into it with the glance of daylight. Moonlight emanations—the palinogenesis of our real day-life—one can but fancy, from the vestiges left of them at dawn, that this apparently unsentient and impressionless earth, hard, solid, and impenetrable, dreams dreams of a night, and that these are dreams of hers which have not been quite cleared away by the first purple flames of the sun rising in the east. But presently they dissolve, and the earth is as hard and prosaic as ever; which is sufficiently so, as everybody knows who has ever had any intimate association with her in her hard, impassive, and unsympathetic daylight moods. She dreams, however, and has her moonlight reveries; I am positive as to that, from observations taken at the window of the old house; and these flitting fog-creations are fancies woven by her busy soul, while she is sound asleep.

But, not to romance too liberally, and to leave to men of mystic temper the old German fancy that the earth is alive, and a slumbering monster that will some day wake up, shake her shaggy ribs with a tremor or two, and jostle off the minute vermin that inhabit her grassy cuticle, into eternal space. The legend lends an added meaning to the terrible though picturesque imagining of Byron:

" . . . And the icy earth
Swung blind and blackening in the moonless air."

But it is very doubtful whether it has any logical relation to the subject of clouds, unless they may be regarded as volumes of vapor-laden breath from her heated nostrils, the volcanoes. Nor is it intended to wreak one's pungent paragraphs on the fantastic *Blackwood* writer; since it must be taken for granted that the *motif* of his article was probably the perpetration of a clever and imaginative, but not necessarily accurate, delineation of the various moods to which clouds may possibly be addicted. Yes, moods—for, as Poe suggests in one of his dreamiest ballads,

"Never a flake
That the vapor can make
With the moon-tints of purple and pearl"

can be regarded as destitute of a certain psychological interest; and even I, prosaic body as I am, with an idea that a fact is a more imaginative thing than a fancy, and dips deeper into the life infinite, I have seen, lolling lazily on the growing grass, strange faces peeping over the edges of tinted clouds and evidently enjoying hugely that special manner of locomotion. One naturally falls into romancing in a dissertation on fog and mist. But, although one may appear to disregard the true in reveries of the beautiful, one should never openly contradict the established verities. An oak-tree standing on its top or a stone falling upward is an imaginable thing, and might be

painted very cleverly on canvas; but either would contradict the verities of observation. I have hanging above my table as I write a Swiss scene, one of the Alps of which in the distance is a shadowy Egyptian pyramid, while the well-worn pebble-stones in the trickling rivulet in the foreground lie with their long axes across the current, in lieu of parallel with it, as generally occurs with pebble-stones except in Switzerland. The pebble-stones are, individually considered, well painted; but, in addition to contradicting the verities in respect to their axes, they are arranged with such mathematical precision as to suggest a number of eggs very carefully placed in position. So with this unremembrance, on the part of the eloquent *Blackwood* dreamer, of the real cause why clouds ascend and inhabit the empyrean, in place of settling low down like misty curtains; he might have written an article just as artistic, just as beautiful, and just as reverie-like, without substituting a pyramid for a mountain or placing his pebble-stones with the longer axis across the current. In other words, he need not have intimated that clouds contradict the law of gravitation, thus misleading the unscientific reader, who might have been mystified, without employing that unprofitable trick of the sensation story-writers. No topic dips deeper into mist, mystery, mysticism, and mystification, than an excursion into cloudland; but, after all, as respects atomicity, the molecule of water is a simpler body than that of air; and, with equal diffusion, or equal spaces between their molecules, a cubic yard of the latter would naturally be heavier than a cubic yard of the former.

There is another element which has not yet been properly considered in the phenomena of evaporation, ascent, condensation, and descent; and that is the attraction of the sun. After sunset, as the twilight shades off into night, there is during certain months of the year a copious fall of vapor, styled dew, which deposits shining diamonds in the buttercups, transforms previously invisible gossamers into webs of blazing brilliants, and bedraggles the wings of the vagrant butterfly in a most uncomfortable manner. It is true that the lower strata of the atmosphere grow gradually cooler after sundown, and thus operate to some extent as a condenser; but the attraction of the sun, or rather the reversal of its track of attraction, has no doubt an active influence in dew-fall. For illustration, the track of strongest molecular influence between the earth and the sun would be represented by the shortest cut from the centre of the one to that of the other, intersecting the surface of each perpendicularly on the noonday meridian. The attractive force of the sun's mass on water-particles can be readily calculated for every hour in the day, and this silent lifting influence is really something tremendous. At twelve o'clock midnight, as respects that given section of the earth's surface where it is midnight, the attraction of the earth's centre and that of the sun are both pulling in the same direction with united and silent energy; and vapors that had ascended during the day, and remained suspended at a given altitude, are slowly drawn downward and deposited on the surface as dew in summer, or as frost in autumn.

See, now, if the digression be permissible, how apparently remote subjects are related, and how science ties together, as effects of the same cause, the most diverse phenomena! During the day, the attraction of the sun is from my heart in the direction of my head, in a general and average way, as I stand erect. But as the sun descends and the night creeps on, the gravitating attraction of the earth is unopposed by any neutralizing tendency. As midnight draws on, the attracting force of the sun is added to that of the earth, and it takes considerably more heart-force to propel the blood headward than it did at nine in the evening, while at that hour it required considerably more than it did during the day. As a consequence, the quantity of blood carried to the brain relatively lessens as the afternoon wears on and on into evening; and I grow drowsy and at last drop to sleep. The same agency that caused the dew to fall brings me slumber and its dreams.

At sunset of a summer's day, to return to the original subject, as one stands on a hill-top and looks westward at the sun sinking amid masses of gorgeously-tinted and splendidly-illuminated clouds—its day's work of evaporation or water-lifting—it is not difficult to form a proximate conception of the tremendous amount of lifting energy operating along the direct path between centre and centre. This is why clouds follow the sun, and why, when a farmer sees the sun set clear, he anticipates a rainless morrow. It also gives origin to that graphic metaphor represented in the curt sentence, "The sun draws water," which is so familiar to the ear of every New-Englander. I used to see him in my mind's eye, when I was a boy, a tremendous Hercules in glittering armor, his yellow hair streaming in every puff of wind, his breath hot and suffocating, carrying a brazen pail of almost inconceivable dimensions, and dipping it in the Willimantic River, down in the valley east of the old house; and my father, during the long August days, was in the habit of making that statement so frequently that it was a matter of wonder to me, considering the dimensions of the brazen pail, that the river was not dry before September set in. As there was a large cove at one point, where I always went in swimming, the frequency with which the sun drew water on special days was a subject of serious importance to me and to certain other amphibious young gentlemen in the neighborhood. The tremendous giant and the brazen pail are only recollections now. But the sun still draws water from the river with the same pertinacity as of yore, although in a less picturesque manner—that is to say, lifts invisible tons upon tons of it during the long, lolling summer days—

"When Carlo's tongue hangs from his mouth,
And stifling winds blow from the south,
And forests droop their leaves;
When reapers toiling 'mid the rye
Stop now and then to heave a sigh,
And calculate the sheaves;
And sturdy mowers, brown and lithe,
With lazy rhythm, swing the scythe,
And each his swath upheaves."

I shall be excused, I hope, for having manufactured a quotation to order, not recollecting one exactly suitable to the occasion;

also, for having thus far sadly betrayed the scientific intention with which I set out.

A word must be dropped as to other points in the problem; and here a little original generalizing may not be inadmissible. The reader must imagine a path of molecular influence between the earth and the sun, shaped like a truncated cone; and, to get a distinct mental view of this cone, he must remember that its diameter at the base (the sun's diameter) is to its length as 1 is to 110, and that its diameter at the point of truncation (the earth's diameter) is to its diameter at the base as 1 is to 110; for, curiously enough, the earth's diameter is to the sun's diameter nearly as the sun's diameter is to the average distance between the two bodies. At a certain point along this conical path of molecular influence the attracting forces of the two bodies are necessarily in such exact equilibrium that, were a solid body to be placed there, and no other planetary influence to disturb it in its position, it would remain there forever. Now, to account for the reciprocal influence that any one body of the solar system has upon any other, and every one upon every other, it is not at all necessary to assume that the universe is pervaded with an attenuated ether, nor are there any sufficient experimental, observational, or mathematical grounds for such an assumption, although it is just now popular with men of science. There are, on the other hand, sufficient experimental, observational, and mathematical grounds for believing that an attenuated form of matter—perhaps, the *akaron* of a recent discoverer, the lightest of known bodies—pervades the path of mutual attraction between the earth and the sun; and perhaps it may be essential to state that *akaron* is a constituent of hydrogen, which is not a simple body, as formerly believed. The term signifies *the weightless*. To digress for a sentence or two, I firmly believe—although no other data exist than the predominant hydrogenic composition of meteoric stones, the exceeding levity of *akaron* (one of the bases of hydrogen), and the mathematical verity that, at a certain point along the molecular path previously described, a perfect equilibrium must exist between the attractive forces of the two bodies—that it will finally appear that meteors are molecular products of this path of mutual influence, generated at the point of equilibrium, and liberated at periodical intervals by the disturbing influence of other bodies of the solar system. For example, a tendency to form independent molecular centres would necessarily exist at the point of equilibration, which the reader may readily ascertain by performing this problem: As the earth's mass is to the sum of the masses of the earth and sun, so is the distance from the earth of the point of equilibration to the whole distance between the two bodies. The universe is thus dotted with meteor-forming fields. Supposing this tendency to have its logical result, solid bodies would be formed at this point, and, the attracting forces being equal, would revolve round the sun between the earth and that luminary until some planetary body, having its orbit external to that of the earth, added its attracting force to the earth's by passing behind it; when the equilibrium would be disturbed, and the attraction predominating in the earth's direction, such

bodies would be precipitated earthward with tremendous velocity. Again, as between the earth and the moon, the formation of meteors at the point of equilibrium would be possible. Exponents of a disturbance of the molecular path between the sun and the earth, a fall of meteors is always the precursor of weather phenomena not announced in the programme.

To the point of why clouds ascend, the discovery of *akaron* as a constituent of hydrogen (the water-generator) adds an important item, showing that one of the principal elements of water is the lightest of yet discovered gases. But, again, light, heat, electricity, magnetism, and every one of the countless paths of molecular influence that bind the earth to the countless bodies of the universe, are factors in determining the weather. When I drop a pin upon the floor, the slight concussion is apprehended the universe through. Yonder distant star imperceptibly vibrates to poor human laughter, and responds sympathetically to every sob of human sorrow. So, although the weather is mainly an affair between the earth and the sun, it is, to a less extent, something in which every star in heaven participates—a problem that can never be unraveled completely until the tangled skein of the universe shall have been dissected filament by filament. A summer cloud, floating so listlessly along the horizon, or lounging in lazy liberty just over yonder hilltop, represents *in propria persona* the sum of all the antecedent movements and moods of the illimitable cosmos. It is an algebraic problem—an epitome of ten thousand transcendental equations. When, however, one comes to generalizing, the problem is less complex; for, although light, heat, and electricity, are apparently very diverse, they are really but modes of that one universal force that binds worlds on worlds together. Why is it, asks one, that the earth apparently receives the greatest amount of heat when it is most distant from the sun, and the least amount when it is nearest? Because, after the highest heat of summer has been attained with the maximum distance, the earth commences to move rapidly toward the sun, and thus the greater portion of the attractive force of the latter is transformed into motion toward that centre. Having arrived at a point in its orbit nearest to the sun, it shoots past that luminary during the coldest days in winter; and again the transformation of attraction into forward motion ceases, and the tremendous but readily calculable amount of energy but lately absorbed as motion assumes the forms of augmented light, heat, electricity, and other organizing forces. The difference is, that during one half the year the attraction between the earth and sun is absorbed as motion, while during the other half the earth is receding from the sun, and the attraction is transformed by action on the earth's mass into other and organizing modes; and thus Newton's attraction (or gravitation), that served him and his contemporaries as the key to the problems of astronomy, is, under some one of its Protean aspects, the potential cause, not of the shifting aspects of the weather only, but of all organic and vital phenomena. It is Omphale at her distaff; it is Ixion at his wheel; it is Galvani at his battery; it is Huxley at his microscope. It is a cloud loitering

in the summer sky; it is lightning killing with its stroke; it is rainbow after rain; it is the aurora borealis emblazoning the evening zodiac. It is the tree growing in the woods, the violet blossoming in June, the river stealing to the sea, the poet droning over his poem. It is Jupiter compelling the clouds—all things shifting and uncertain in the weather. It falls in the blazing meteor; it crawls up the mountain under a veil of fog.

FRANCIS GERRY FAIRFIELD.

MY FRIEND THEODORE.

"AFTER an absence of five years do I at last see you again, dear old Berlin? How much, during these years, you have changed! You have spread out to the right and the left like the biblical mustard-seed—have achieved an imperial crown and seized the sceptre of united Germany. In a word, you have achieved greatness; and I—

"Bah! I will not spoil this lovely spring morning by indulging in mournful recollections. What good comes of regrets and complaints?

"Five years ago Clara used sometimes to call me an hypochondriac and misanthrope, and I am by no means sure she was unjust.

"I wonder if she is married? She was sixteen when I bade her good-by and as beautiful as an angel. Without doubt she has quitted the paternal hearth, ere this, for one of her own. I think I see her—in my mind's eye—as Frau Veit. That was the name of the lovesick youth who lived *vis-à-vis*. No, no, I do her injustice. She protested she could not endure him, and just to be 'settled' she would never marry. Veit and Clara, they rhyme about as well as do day and night, or winter and summer. She would sooner have married the *rentier* who occupied the second floor and used to send her such beautiful camellias."

I indulged in this monologue as I one morning strolled carelessly through the Berlin Thiergarten. I was thoroughly blue—why, I could not tell, but my inability to account for my peculiar frame of mind did no improve it. After a while my recollection of Clara gave my thoughts a less sombre hue.

Clara was the daughter of a lace and fringe manufacturer, in whose house I had lived during my last two terms at the university. I entertained for her a sort of brotherly affection, which an absence of five years had not materially lessened. True, we had kept up no correspondence, which was my fault; true, I had not even heard of her during my long absence, but now under the influence of old, familiar scenes all my former liking for the lovely Clara returned, and I resolved, before the day was over, to pay a visit to Herr Friedrich Lachmann, lace and fringe manufacturer, Belle-Alliance Street, No. —.

Meantime I had arrived at the "Big Star," where I turned to the left toward the city gate in order to refresh myself with a luncheon in some restaurant Unter den Linden. My misanthropic frame of mind had given way to an excellent appetite and a certain inexplicable self-satisfaction which we experience when we have determined on anything, no matter how

trifling it may be. With a more rapid and elastic step than before, I passed through the gate, and was on the point of crossing to the sidewalk, when my eyes fell upon a figure, the sight of which fixed me to the spot. For some seconds I stood motionless, unable to utter a word. Then I cried out in a tone tremulous with emotion:

"Theodore! Is it possible that it's you?"

A lank, pale, hollow-cheeked figure reached out a bony hand, and, smiling faintly, replied:

"My appearance seems to astonish you. How are you?"

"That is what I ask you. How wretched you look! What's the matter? Are you ill?"

He seemed to me the very picture of dissipation. All the youthful freshness and vigor had disappeared from my afortime comrade, whom I had known as one who was always ready for anything, and was the acknowledged favorite of the softer sex from the highest to the lowest.

What a fearful change! Where was the fire that once lighted up his large gray eyes? Encircled by leaden, gray rings, they looked languidly from their sockets; the white had become yellow, and the lids seemed to have lost the power to rise above the middle of the pupil. And his voice! Its shrill yet faint tones made me fairly shudder, when I listened to them and thought of the deep, full bass with which he used to sing "*Gaudeamus igitur*," his favorite song.

"Are you ill?" I asked.

The question was certainly superfluous. His entire appearance answered it sufficiently, and yet I instinctively felt that his disorder, whatever it might be, was of a peculiar nature.

"Ill?" he replied, after a pause. "Yes, and no, as you will; or rather, no! I am not ill, but in better health than any of you—at least, so far as my mental condition is concerned."

I was terrified. The fear that my friend was insane affected me strangely.

He divined my thought.

"No, no!" said he, smiling. "My reply may make you question my sanity, but, if it does, you are in error. On the contrary, I am sure I never saw the things of this life in their true light till lately."

"But what is the matter with you?" I asked, anxiously. "You are so pale, and clearly so feeble."

"That is the prologue, the introduction," he answered, with a strange laugh that made cold chills run over me.

"Have you not consulted a physician?" I continued, without heeding his incomprehensible reply.

"A physician? To what end?"

"I see you are not disposed to give me any satisfaction," said I, with a shrug. "Pardon me for being so inquisitive; it was from the best of motives."

"I have no doubt of it. I assure you I have no need of physic; I feel quite well—at the moment, at all events."

He passed his hand over his forehead, and then seized me convulsively by the arm.

"Come," said he after some seconds, as he drew a long breath. "Let us rest ourselves on that bench."

"What was the matter just now?" I asked, after we were seated.

"I was dizzy."

"And yet you insist that you are well?"

"Yes, certainly. These attacks never trouble me except when I make one of the senseless throng. When I do what I call living, I never am inconvenienced by them."

"When you do what you call living? What do you mean? You speak in riddles."

He made no answer.

"When did you return to Berlin?" I inquired, after a pause.

"Four months ago."

"What are you doing?"

"Nothing."

"Does your condition prevent your doing anything?"

"Oh, no—or, rather, yes. My condition does prevent my doing anything."

"You seem to delight in contradictions."

"I confine myself strictly to the answering of your questions."

"My questions, then, are very unintelligible?"

"Very true."

"You are frank."

"My condition! What means condition? Physically, I am very well able to continue in the service of the municipal courts. My present mental and physical state, call it what you will, dates from only a few weeks back; but—"

He hesitated.

"Ah! I see," said I. "You are wanting in desire, in ambition."

"It was impossible for me to play my part further in the colossal farce. At last one gets a better insight into things."

"An insight into things! Then your profession has become obnoxious to you?"

"Thoroughly!"

"I pity you; still, you are less to be commiserated than would be many another, since you have ample means to live without working."

"Thank Heaven! after years of drudgery."

"You always have been."

"No; I have been for only a few months. Till then I was a prey to the most senseless illusions."

"You are a strange man."

"It does not surprise me that you do not fully understand me."

"And will you not aid me in my desire to understand you?"

"Certainly not."

"Well, since you persist in speaking in riddles, let us rather talk of the weather."

"No; life is empty enough without talking platitudes."

"What do you mean by senseless illusions to which you have been a prey?"

"Why, what else but the old rigmarole about what should be the end and aim of life—what we owe to society and ourselves—in short, the whole rubbish called duty?"

"What in Heaven's name has all that to do with your jurisprudence? Theoretically we are all of us more or less annihilationists."

"I am practically."

"Practically! How so?"

"Very simply. I have turned my back on the paltry things of this miserable life. Ex-

istence to me is now only an *intermezzo*. Life does not really begin for me till after sundown. Then I find the realization of the dreams you optimistic dolts languish after in vain. Then the veil that year out, year in, enshrouds the souls of you every-day mortals, rises, and I live—live in a world of beauty and scent odors, whose glories are not too dearly bought, though they cost one health and strength. Thus I, at least in a measure, escape the puerilities to which you are wedded, and, when finally the hour of annihilation strikes, I can say: 'I have lived; I have at least strewed the abyss with roses; among the thousands on thousands of fools I was wise.'"

I was silent. His eyes sparkled like coals of fire over which a current of fresh air suddenly passes. Then their expression faded again to one of weary apathy.

"You paint your mysteries in seductive colors," said I, after a while. "If it were possible to rise above the vanities of earthly things—"

I did not finish. My eyes fell involuntarily on the shattered frame before me; I contemplated the wreck with a shudder. "No, no; at such a price," I soliloquized, "the waters of Lethe would be too dear!"

Theodore took up my half-finished sentence.

"If it were possible," he repeated, while a triumphant smile was shadowed on his thin, bloodless lips. "I assure you my panacea never fails."

As I only looked down and remained silent, he continued:

"If you, like me, have come to the conclusion that life, from the cradle to the grave, is a pointless farce; if you, like me, have lost all interest in this every-day humdrum—"

I sighed.

"It seems," he continued, in the most languid of tones, "that I touch a sympathetic chord. A thousand times I have envied the uncultured laborer, who spends his life carrying stones or cutting wood, and feels himself happy when his young wife, after a day of toil, sets before him their modest repast. A thousand times I have wished that I might change places with the ploughboy, whom the mysteries of Nature never perplex, and whose greatest happiness is found over a glass of beer and in the smiles of the barmaid. I am, I confess, *blasé* in the worst sense of the word. The material world has nothing that for me possesses the slightest interest. I have an aversion for everything—everything! I avoid even thought, for, take what direction it will, it ends in that accursed blind alley which has been the heritage of every son of Adam. In short, I appear to myself like a prisoner in a dungeon, close and damp; like a criminal, who awaits the headman's axe. I await, with impatience, the hour when I shall take leave of this existence called life, and take up my abode in paradise. If you think and feel in any degree as I do, then be a man—take a decided step. What say you—have you the courage?"

"What step?" I stammered.

"Become a member of our secret society."

"What secret society?"

"We call ourselves '*Les Amis de la Mort*.' You turn pale. I see you, too, are

ripe for our classic league. Come, give me your hand, comrade."

"The Friends of Death!" I repeated, mechanically. "A strange society you must be, truly!"

"Perhaps the name is not so appropriate as it might be; 'The Contemners of Life' would perhaps be better, but my associates thought this too direct and commonplace, they wanted something mystic. Death, however, plays an important rôle in our statutes."

"Explain more fully."

"Well, our whole method—our *ars vivendi*—has for its object the hastening of the last hour. We systematically destroy our constitutions."

"So it would seem," I replied. "And do you really think I could bring myself to become one of you?"

"Fool!" he cried. "Then you, too, cling to these old childish prejudices! You, too, reckon the value of existence by its duration! You, too, would prefer twenty years at compulsory labor to four at liberty! Sorry logic! But your delusion is excusable. You know not yet what true being is. A single evening with 'Les Amis de la Mort,' and you will be wiser. Will you go with me to-night?"

"First I must know—"

"Ah! do you divine nothing? Have you never read of the Oriental charm that makes of men gods; of the mysterious gum that is procured from the hemp-stalk and is called hashesh? Les Amis de la Mort smoke hashesh."

"What! Here at one of the great centres of Western civilization," I cried, "you indulge in a vice that is even too barbarous for the barbarians of the Orient? Here, where everything is full of new life, where all is progress, you give yourselves up to despair and madness?"

"Enough! enough!" he cried, in a sepulchral tone. "We are all the victims of despair and madness whether we will be or not. Les Amis de la Mort only seek to escape the clutches of the furies. You distort the facts. Besides, you are as yet incapable of passing judgment on us. Again I ask, will you come with me?"

"What prompts you to persuade me to take a step that can result in no good to any one?"

He shrugged his shoulders and replied:

"What prompts me? Pity. And, then, every society likes to make proselytes."

I hesitated. On the one hand, my curiosity was at the highest pitch; on the other, I feared that the poison might have an irresistible fascination for me. But no! I certainly had sufficient self-control to resist it! And then it would be at my option to be a simple spectator or to take part in the exercises. I therefore, but not without serious misgivings, promised my dangerous friend to go with him, and made an appointment at his lodgings for half-past seven. He intimated that I was to observe the strictest secrecy, an injunction that was hardly necessary.

"*Au revoir*," he murmured, reaching me his hand. Our conversation had evidently fatigued him. He turned slowly away, and was soon lost in the crowd of promenaders.

It was some time after my friend Theodore left me before I felt that I was fully myself

again. To force my thoughts into wonted channels, I gazed for a while at the equipages that rolled right and left over the pavement, and mentally made my observations on the occupants of each. Then I sauntered down the street and occupied myself with the show-windows. For three hours I wandered through the streets, until exhausted Nature began to demand her rights. Hungry and fatigued, I sought a restaurant.

While I was waiting to be served I ran my eye over the morning papers. The long-winded editorials, the correspondence, and the *feuilletons*, were all too long for me to attack in the frame of mind I was in. I therefore gave my attention to the short paragraphs and the advertisements. Suddenly my eyes fell upon an official announcement that awakened all my half-dormant faculties. I read:

"TO ALL WHOM IT MAY CONCERN.—The creditors of Friedrich Lachmann, lace-manufacturer, etc., are hereby requested to establish their claims on the said Lachmann before the Board of Bankruptcy, on or before the 18th inst."

"BERLIN, May 1, 1872."

"You, too, Brutus!" I murmured, with a sigh. "Who would have believed this five years ago? How well I remember your ambitious plans, your rose-colored hopes! You looked upon the great object of your endeavors as being virtually achieved. The handsome five-story house would soon be yours—your Clara would be a perspective heiress—you would figure in the directory as 'Rentier.' How often have you rehearsed to me what you saw in the mirror of the future!—and now? Ah, this is a wretched world, let the optimists say what they will!"

The waiter brought me my soup.

"And how I pity poor Clara!" I continued. "She loved her father so tenderly, so devotedly!"

When I had finished my soup I looked at my watch.

"A quarter to three! In half an hour I shall be through my dinner; I will go to them immediately. If I can be of no real service to them, I can at least give them my heartfelt sympathy. Perhaps I shall succeed in at least cheering them up. The weather is delightful; I will ask Clara to take a drive."

With a smile of self-satisfaction, I raised my glass to my lips, but suddenly my appointment with Theodore occurred to me and I set it down untouched.

"The devil! I had entirely forgotten the crazy *clique dorée* and their hashesh! No, no, I could not get back in time. I must postpone Clara and the drive till to-morrow. Les Amis de la Mort can be proud of the sacrifice I make for them."

The remaining hours of the afternoon seemed very long to me. Three or four times I went to my lodgings without knowing really why. Finally the sun went down and the clock on the neighboring church announced seven o'clock.

"Thank Heaven!" I sighed. I began to fear that Helios had taken a false route to-day.

My heart beat in an unusual *allegro* as I turned into William Street, and, after a five minutes' walk, reached the stately house in which the sombre derider of existence lodged.

I entered the portal. How little did this extravagant elegance harmonize with the comfortless philosophy I had listened to in the morning! The broad, marble, richly-carpeted stairs seemed to be only for the light airy tread of joyousness. The bronze lions' heads of the banisters looked down sedately at me from under massive arabesque. The frescoed walls shone so brilliantly, in the light of the big chandelier, that one could have imagined he beheld one of those fairy scenes in which existence is a happy dream.

An old, morose-looking servant answered the bell. He replied to my inquiry after Theodore politely, it is true, but in a tone that led me to suspect he took me for one of his master's "secret" comrades. A scrutinizing glance at the old man's grave but honest face was sufficient to satisfy me with regard to the situation. He was evidently an old family heirloom; he had for his young master all the love characteristic of his species, and saw the once promising scion of his house wither away without any visible cause. Instinctively he ascribed the change in the young man to the influence of bad associates, and consequently he looked upon every one who presented himself at the door, unless he bore positive proof in his appearance to the contrary, as being of those who ought to be shunned. All this was distinctly discernible in his tone and in the manner he surveyed me. How many times had the faithful old soul, in the most respectful and considerate manner, called his young master's attention to his failing health! How many times had he adverted, in sorrowful tones, to good old times that were so full of gladness and hope, without eliciting any response but a disdainful shrug or a peevish "Gottfried, you annoy me!"

Theodore received me with a sort of chivalric formality which had, I thought, a strong admixture of the ironical in it. He offered me a cigar, and for a minute or two we sat opposite each other without a word being spoken. I blew the smoke of my Havana toward the ceiling, and carelessly glanced at my surroundings.

The room was as tastefully as it was richly furnished; but all was in disorder. On one of the blue, damask-covered sofas lay a pile of mutilated books and several articles of wearing-apparel. The large mirror over the mantel looked as though some one had thrown a colored fluid against the glass, while the large rug in the centre of the room was ruined by the coffee and ink spots on it.

Theodore seemed to observe me. The astonishment I betrayed despite my endeavors to appear indifferent amused him. He threw his cigar away, yawned, and said, in the tone of self-contempt that was peculiar to him:

"You are enumerating the symptoms of my softening of the brain, I see."

"Shame on you!" I replied. "You gave me, but a few hours ago, sufficient proof of the soundness of your intellect."

"Well, we will call it, then, the symptoms of the soundness of my intellect."

"I see here no symptoms of anything. I see simply an elegant apartment which you do not seem to prize very highly."

"Humph! I certainly do not allow it to tyrannize over me. If I am compelled to bow

before immutable Nature, I am not before handsome furniture. I tore those books in pieces after I came home this morning. Why, I hardly know myself. If I had not torn something else, I should have torn my own flesh. The spots on the mirror date from this afternoon. Gottfried brought me my coffee. As I was drinking it, I saw the reflection of my accursed visage. I couldn't throw the decoction in my face, so I threw it at my counterfeit. That is all very easily explained. The nerves are much more rebellious with us than with you every-day mortals."

What reply could I make? As the French say, the theme was too much for my Latin, so I continued to devote myself to my cigar, and remained silent.

Theodore looked at his watch.

"Shall we go?" he asked.

"I am fully twenty minutes ahead of time," I replied. I feared he might misconstrue my extreme promptness.

"Better too early than too late," said he, smiling. "Les Amis de la Mort allow an academic quarter."

He went into an adjoining room, and I busied myself meantime looking over an album that lay on the mantel. I found it to contain the counterfeit of many familiar faces. Now and then, on the margin, there was a little cross and death's head opposite the pictures; and among these, to my surprise, was my own.

"Why do you reckon me among the dead?" I asked, when he reentered the room.

"How so?"

I pointed to his marginal hieroglyphics.

"Ah!" he replied gayly, "that's what you mean?"

"What do these signs mean?"

"They distinguish the sheep from the goats."

"A very unsatisfactory explanation."

"Well, the majority of those who are not marked with a cross and death's head have a prospect of living a normal life; the others—those that are thus marked—belong to the category of those whom I deem past hope."

"I thank you!"

"My dear fellow, all your efforts to deceive me are of no avail. I know you better than I know myself. I made up my mind with regard to you as long ago as when we were in Bonn. You, too, belong to the black flock, who are beyond redemption. You, too, are ailing despite your iron muscles, your rosy color, and your moral strength. Maladies of the soul are not pictured so visibly in the features of the patient as are those of the body; but the eye of the initiated is not to be deceived. Come, we are waited for!"

We descended to the street very leisurely. Our way led through the most animated part of the city. The hurrying to and fro affected me most strongly; I had never experienced a similar sensation before. For a moment I was almost tempted to turn back.

After a walk of some twenty minutes, we reached our goal. The brilliantly-lighted circular stairway was silently mounted. Theodore rapped four times at a massive, handsomely-carved door. It opened and we entered.

I should never forget the indescribable

impression this moment made upon me, were I to live to the end of time.

A room draped with black—in the middle a table, surrounded with chairs, having on it all sorts of odious objects. Around the sides of the room there were black-upholstered ottomans. In the background there was a sort of mongrel that was a cross between a buffet and an altar furnished with water-carafes, death's heads, glasses, and fantastically-decorated cups. The uncertain light of the room contributed largely to give every object a spectre-like appearance. Such was the apartment in which "Les Amis" held their conferences.

A tottering figure rose to receive us.

"Salve, morituri!" said Theodore; "I bring a candidate."

A cold chill crept over me, from the roots of my hair to the very ends of my toes. The haggard brother who came forward and offered me his bony hand, with a sardonic grin, may have been forty years old. His head was very bald, and his voice trembled like the bones of a shivering skeleton. Theodore, compared with this picture of wretchedness, was a Hercules.

We were the first to arrive. It was not long, however, till all were in their places—some eight persons of very different exteriors.

Two or three of the little circle seemed thus far to have been little affected by the poison. Their bearing was comparatively vigorous, and their color much less sallow than that of the others. All, however, bore unmistakable evidence of having a mind diseased.

The bald-head who welcomed us prepared coffee. At the same time they all began to get their smoking-apparatus in order. It was now a quarter after eight. In half an hour the orgy was to begin.

Theodore, meanwhile, seemed disinclined to await the official time of beginning. He seemed in haste to acquaint me with the doings of the strange fraternity. He inhaled the hellish vapor in full draughts, paying no heed to the remonstrances of his comrades, who reminded him that he should first give me the usual initial lecture.

"Gentlemen," I stammered, "you misunderstand my object, I—I am not here—"

"Silence, stranger!" cried my right-hand neighbor. "First of all know that in our temple the familiar 'thou' is tolerated. The ceremonious 'you' we leave exclusively to the dolts who cling to life."

"Very well. I was about to say that I am not here with the view of becoming a member of your fraternity, but—"

"Minos, reach me the prayer-book," interrupted another.

Minos brought one of the Oriental smoking apparatus I had seen on the buffet.

"I am obliged; I do not wish to smoke," said I in a firm tone.

"Then why art thou here?" asked my first interlocutor, whom they called Thanatos.

"I came on the invitation of my friend Theodore. If I have been guilty of an indiscretion—"

"Theodore! Your friend's name is Tumuluz!"

"I—I am ready to retire."

"Oh, no, no!" cried three or four voices in chorus. "By no means! We receive guests. But wilt thou not make an effort to conciliate the favor of the goddess?"

"At another time, perhaps," I replied.

"Bravo!" cried Thanatos. "And now allow me to present my comrades to thee. Rise!"

I rose.

"This venerable individual here, of cadaverous mien, is called Minos," he continued with ironical pathos. "The fellow was a lovesick fool, and allowed himself to be controlled by his wife like a child. In return his wife ran off with a Polish wind-bag, and the lovesick Minos took it so to heart that he squandered his little fortune within the week. Then he dragged himself about, cursing and praying until he met me."

Here he paused a moment to study the effect of his words.

"My name is Thanatos," he continued.

"Minos and I conceived the idea of forming a society, which should cure us and others of all earthly ills. I, too, was ailing. I am what men call a poet. I know as much about Art as any mortal that has lived since the days of Homer and Sophocles. I was as much in love with her as Minos was with his faithless wife. With my heart's blood I set down the innermost secrets of my soul on the finest vellum. For years I sought a publisher, but found none who were desirous to give the fruits of my imagination to the world. And yet I felt that I already was laurel-crowned. Finally, I found one who was compassionate: the offspring of my brain at last saw the light. I dreamed of an unparalleled success; Fate bespattered me with mud and trampled me under foot. At first I thought my poor head would burst; I literally gave myself up to despair; I cursed even myself. In time I became wiser and produced a poem, entitled 'Les Amis de la Mort'—Minos was my co-laborer. The society has proved a greater success than my verses."

Thus he made me acquainted with his comrades, one after the other, in each instance accompanying the introduction with a biographical notice, more or less detailed in its character. In every instance it was essentially the same story—plans frustrated, hopes blasted, love unrequited. Of Theodore alone he had nothing especial to narrate that could in any degree excuse his nihilism. He became a member of their fraternity from principle. Among men who were actuated by impulse or instinct he seemed to me to be the only thinker. Hence I looked upon him as being the most reprehensible.

Thanatos spoke beautifully. Despite the aversion I felt for my surroundings, there was, nevertheless, something about him that I found truly sympathetic.

Theodore meantime had possessed himself of a cup of coffee. As he sat smoking and sipping, he reminded me of a well-organized automaton. His entire surroundings seemed for him no longer to exist. His eyes shone with an unwonted, glass-like brilliancy, and his cheeks were slightly flushed, as though he were recovering from some mental excitement.

"So, stranger," said Thanatos, when he had gone through the list, "now thou knowest

us all. Wilt thou now make the acquaintance of our Bona Dea? She is not so terrible as you seem to think," he continued, without giving me time to answer. "She kills, it is true; but what does not kill here below? Every heart-throb brings us nearer the end; every incident, however trifling, pushes us nearer the grave. Our goddess kills, but she renders blissful."

"How?" I asked.

"Her embrace cures every earthly woe. Under her influence we feel free—free as the birds in the air. Every nerve, every sense of one's being, seems to be under the influence of a magic spell. Every wish, every hope of the heart, is fulfilled. This ecstasy transports the devotee to a supersensible world, a world of bliss and sweet odors, a paradise, a heaven! The minutes of this dream seem to be prolonged to days, months, and even years. When he awakes from this ecstasy he has *lived*—lived more than in the whole of his previous existence. Our goddess, therefore, only seemingly shortens life; in reality, she lengthens it to infinity."

I made no response. My brain began to whirl.

"I must be gone from here!" I cried, after a pause, during which they all observed me closely, except Theodore, who took no note of what was going on around him. "Your poison is too seductive, too hellish, for my powers of resistance!"

"He trembles at the thought of what's in store for him," laughed Thanatos, in triumph.

"A good sign.—Thou art as good as one of us, comrade.—Open the prayer-books."

"Away, away!" I cried, in a sort of frenzy. "I will not allow myself to be buried alive!"

I sprang to my feet, and rushed toward the door. Quicker than thought I removed the bar; but, before I could escape, a half-dozen hands sought to hold me back. With a single movement I freed myself from my assailants, hurling one of them headlong against one of the black ottomans. Three seconds more and I was in the street.

The next morning, when I awoke, somewhat fatigued and depressed, but nevertheless in a self-satisfied frame of mind, I was inclined to believe that I had witnessed a grotesque comedy, and not a scene from real life.

A little after twelve o'clock I took a cab and directed the drowsy driver to take me to Belle-Alliance Street, No. —.

Clara! I was about to see her again after these long years! No, I could not be so sure of that! It was fully four years since I last heard from her, and what could not have happened within that period?

My heart quickened its pulsations perceptibly as I pulled the familiar old bell-knob. A slight, sylph-like figure opened the door. It was she, the golden-haired, hazel-eyed Clara!

Her surprise lent to her lovely face an additional charm. I could have pressed her to my heart as a favorite sister. It was not till after we were seated in their cozy little parlor that I saw she looked care-worn. On her rosy cheeks there were very perceptible traces of recent tears.

She called her father. What a change had taken place in the appearance of the worthy

man since last I had seen him! What must he not have suffered! Five years had added three times five to his looks.

I told them that I already knew of the misfortune that had befallen them. Clara told me something of the general circumstances. It was one of those old stories that are continually being renewed—misplaced confidence, unlooked-for events, and vain endeavors.

"You see," said the old man, "I am little better than a beggar. I shall not save enough from the wreck to enable me to die in peace and to bury me decently."

"Father!" cried Clara, as she threw herself weeping on his breast, "don't talk that way, unless you want to break my heart. Am I not here, and can't I work and earn enough to enable us to live at least decently? You know you have given me a better education than any young girl of our acquaintance has, and shall I not be able now to turn some one of my accomplishments to practical account? The time has come when I will prove to you that the sacrifices you have made for me have not been thrown away. You will see that I shall soon be able to make enough for us both by teaching English: you know I have the promise of two pupils already. Only be your cheerful self again, and I am sure we shall soon be as comfortable and happy as ever."

I witnessed this scene in painful silence. How I regretted my inability to render these excellent people any material assistance in their great need! Willingly I would have given them thousands had I had thousands to give, but I possessed only necessary funds.

"But Theodore!" I thought suddenly; "he is rich, and has no one dependent upon him. How easily he could keep them out of their troubles! And he will, too, if I can but interest him in their misfortunes. Lacking in generous impulses he certainly is not, unless he is greatly changed from what he used to be. True, the great change that has come over him is not for the better; but, no matter, under exceptional circumstances, such as these, I am sure he will prove the same generous-hearted man he was in days of yore. At all events, I will put him to the test."

I inquired what sum would be necessary to avert the catastrophe that impended. Its size was very considerable—much greater than I anticipated. But I was sufficiently acquainted with Theodore's circumstances to know that he would be able to supply the sum without difficulty.

I consoled the good people as well as I could, and promised to return the next day.

"Perhaps," I added at the door, "I shall be able to bring you some good news; but, remember, only perhaps."

An hour later I stood before my friend, but not without feeling a certain boy-like embarrassment.

"How are you?" I asked, in an indifferent tone, which I had involuntarily copied from him.

He yawned.

"You don't seem to feel very bright after yesterday's *séance*," I continued.

"Humph! the peculiar manner in which you left us disturbed me in my best work."

"You should have followed me," I suggested.

"I was on the point of doing so. Our goddess has a great aversion for such exciting scenes. You hurt poor Minos's head severely, when you threw him against the ottoman."

"I am very sorry."

"He swears revenge."

"I have no fear of him. But, now, let us talk of something else. Do you feel inclined to take a little drive?"

"No. But, if you want to go, I'll go with you, nevertheless."

"Perhaps you would rather walk?"

"As you please; but I don't feel equal to a long walk. Your scandalous behavior of last evening quite unstrung me, and I am not yet fully recovered."

"Well, then, we'll drive. Hurry up and get ready."

"What's up with you? Something unusual, I know by your manner. Have you come to ask my assistance in some adventure, as you did, more than once, at Bonn?"

"No, nothing of that sort."

"What is it, then? Are you going to inflict a moral lecture on me?"

"Perhaps. But come on; it's very close here, between your four walls."

We drove in an elegant "Landau" through the most frequented part of the city. I chose this route because I felt that the noise and bustle would nerve me up to the task of making my appeal.

I explained to him fully how my friends were situated, and pictured Clara in such glowing colors that I wellnigh melted in my own fire.

"Humph! so much ado for a bagatelle!" said he, with a shrug, when I had finished. "What an immense deal of importance the vulgar do attach to the thing called existence!"

"Is that all you have to say in reply?" I asked, reproachfully. "Will you come to their assistance, or will you not?"

"If I should be doing you a favor, why not? I have no heirs, and I can no more take the stuff with me than another. What sum do you require?"

"Ten thousand dollars. Remember it's only a loan—without security, it is true."

"Loan or not, it's all one to me. How soon do you want it?"

"The sooner the better."

"Very well, meet me at my banker's tomorrow morning and I will give it to you."

"But—but you will go with me, of course?"

"Where?"

"Why, to see the people you so generously served."

"Not I! at all events not so long as I am in the full possession of my wits. If there is one thing I dislike more than all others, it's gush. As for your friend Clara, I am willing to take your word for her loveliness. Present my regards to her and say that—that much to my regret—"

"No, no, my dear fellow; I shall be the bearer of no excuses. Clara is not given to gushing. You must see them; I insist upon it. Their joy will do you good. You will see that in this world all is not so 'stale, flat, and unprofitable' as your philosophy asserts."

"Do you think this is the first time I have

thrown money out of the window in the interest of the so-called unfortunate?"

"By no means!"

"There's a deal said about the pleasure of giving! Thus far in life I have experienced very little of this rapture. The so-called 'love of humanity' disgusts me. What does the modest robe of gratitude often conceal? Selfishness of the most shameless description."

"Well, then, look upon it in the light of a wearied loiterer. Before we came out, you said you would leave our programme to me. Look upon the affair in the light of an amusement."

"You are very dull of comprehension this morning. I repeat to you that from principle, I—or rather— Oh, the devil! let us talk of something else!"

"Very well—as you will. I am most unhappy in the thought, however, that nothing now can save my friends from ruin."

"How so?"

"I thought you insisted on dropping the subject?"

"Nothing now can save your friends from ruin—how so?"

"It's very simple. I cannot think of being the bearer of the money unless you accompany me, nor would they feel like accepting it unless they could have an opportunity to thank you."

"Humph!" said he, with a sneer. "If it's a matter of such life-and-death importance with you, I suppose I can go along. But remember, if the daughter treats me to any sobbings or the father to any protestations, I shall hold you responsible."

I made no answer, lest I should give him a foretaste of what he so feared, for I was indescribably happy in the thought that I had not misjudged him, and that I was to be instrumental in saving my friends from the ruin that was upon them.

After about half an hour, we separated with the understanding that we should meet at his banker's the next morning.

I had a restless night. I lived over in my dreams the incidents of the evening I had spent in the circle of *Les Amis*. Thanatos addressed to me the speech of welcome and embraced me. Had I been smoking hash-eeh? The minutes seemed to me to be lengthened to hours and days, just as I had been assured they would under the influence of the poison. Finally the striking of the clock in a neighboring steeple put an end to my dreams. I arose, and, it being somewhat late, I had to bestir myself to reach the banker's at the appointed hour.

Theodore looked worse than I had yet seen him. He had been again with the hash-eeh-smokers. In a tone that was hardly audible he said Thanatos wished to be remembered to me, and that he hoped soon to see me among them again.

I made no reply. Theodore drew the ten thousand dollars and handed it to me. I, however, refused peremptorily to take it, whereupon he thrust it into his pocket with a glance as reproachful as he would have cast at me if I had offered him some personal indignity.

We found Clara alone. Her father had been out from an early hour, but was expected to return every moment.

Clara looked, if possible, more lovable than I had ever seen her. Her native beauty and grace, her plain but becoming costume, and the look of resignation upon her fresh young face—all this combined to make a picture that had something irresistible in it.

I wanted to prepare her for the object of our visit, but Theodore, with a certain impatient bluntness that was peculiar to him, forestalled me by asking:

"You are *Fräulein Lachmann*?"

Clara blushed and answered in the affirmative.

"My friend here tells me that your father has recently met with some reverses in his business which place his affairs in a critical condition. Will you be so good as to give me a receipt for ten thousand dollars?" Here-with he drew the money from his pocket.

"How? You will lend my father— But he has not told me anything about it. I am sure, sir, there must be some mistake," stammered Clara.

At this moment the door leading to the hall opened, and *Lachmann* entered. He seemed deeply agitated, and, without noticing us, threw himself into an arm-chair and covered his face with his hands. He seemed to be in the very depths of despair.

"Look up, papa, and speak to the gentleman," cried Clara, trembling with emotion. "Oh, if it is really true—"

It was high time for me to speak. I represented my friend as being a sort of universal benefactor of mankind. A mere suggestion from me had been sufficient to induce him to come to their rescue. The sum he offered could be returned in such amounts and at such times as suited the convenience of the borrower. The transaction was a very simple one, and required no discussion.

My speech was too long for Theodore's impatience, and much that I said of him he did not approve, consequently he interrupted me frequently. When I had finished, *Lachmann*, completely overcome by his feelings, embraced first Theodore and then myself. I sought to temper his demonstrativeness, but in vain; his heart was too full.

Till now Clara had stood motionless, grasping with both hands the back of her father's chair, as though she were afraid of falling. She, too, could no longer control her feelings, but threw herself at Theodore's feet weeping tears of joy and gratitude.

He sought to quiet her. It was a touching scene. Deeply moved, but equally annoyed, he raised her to her feet. She fixed her tearful eyes on him, and, clasping her hands, cried in a tone that came from her inmost soul:

"Oh, sir, how good, how generous you are!"

His confusion became more and more apparent with each breath. Suddenly he seemed to recollect himself. He pressed his lips firmly together, made a motion to me, and left the room without saying a word.

I wanted to follow him, but Clara and her father held me back. They had any number of questions to ask concerning their deliverer. I told them as much as discretion permitted.

"He is ill," said Clara. "I know he is by his looks. And he is all alone in this big city; has no one to care for him and nurse him!"

"But he is rich," I replied.

"Oh, that is not the right kind of care that is bought with money! If he were my brother I would find means to drive away his gloomy thoughts, and then how I would nurse him till he got strong again!"

She looked like a very angel of consolation as she spoke. In the hope of finding Theodore waiting for me near by, I hastened to take leave, promising to return very soon.

As I anticipated, I found Theodore seated on a stone bench less than a hundred yards distant, waiting for me. He looked, if possible, more woe-begone than ever.

"Which way now?" I asked.

"I am dead fagged out," said he, with a shrug. "I think I shall go to bed early to-night."

"And *Les Amis*, will you miss their *séance*?"

"I am too much fatigued, I tell you, for anything but my bed. Besides— But come, let us take a cab and drive home. What a miserable existence this is!"

"Are you not satisfied with the result of our mission? Is Clara not all I represented her; is she not the most lovely creature you ever saw?"

He made no reply.

The reader has, doubtless, already divined the sequel of my narrative.

Theodore had been more deeply impressed by Clara's angelic womanliness than he himself suspected. I had no difficulty in persuading him to return, and, not less to my delight than my surprise, a few weeks only had elapsed when there was no house or place he spent so much time at as at that of the now once more prosperous lace-weaver's. Now, instead of spending his evenings with the hash-eeh-smokers, he spent them with Clara, either in her modest little parlor, or in some place of amusement. In four or five months he regained all his former strength of body and buoyancy of spirits; thanks to Clara's society, he rapidly became his former joyous self again.

Clara, at first, in her intercourse with their generous deliverer, had been animated only by gratitude and compassion; but as, one after another, she discovered his many noble qualities, she felt herself drawn toward him by a tenderer sentiment.

Theodore and Clara were married last autumn; it is now mid-winter. I am under a promise to hold their first boy over the baptismal font. Thanatos is to hold the second one—Thanatos, who, yielding to Theodore's entreaties, has also turned his back on "*The Friends*," and is hard at work on a philosophic poem, which we are all confident will create a sensation.

THE SCIENTIFIC DETECTION OF CRIME.

OF late years science has aided us to such an extent that the escape of a criminal nowadays is made a much less easy matter than it was half a century ago. Chemistry, the microscope and spectroscope, are generally unerring detectives, and supply the authorities,

in a wonderful way, with damning proofs for conviction. So accurately do they perform their work that the merest traces of the organic fluids are discovered; and the spectroscopic, if supplied even with an almost inappreciable amount of poison or blood, will furnish sufficient evidence to hang a guilty man. It would be strange if the advancements were all on one side, and it is not. A comparison of the criminal records of ten years ago and those of to-day will show frequently that poisons which are the most difficult of detection, and of the most recent discovery, are chosen by poisoners, and that alterations in personal appearance are effected by appropriate chemical reagents, suggesting that the professional criminal has, generally, some knowledge of the advance of chemistry.

To consider the subject most systematically, it is necessary that we should bear two points in view: first, the apprehension of the criminal; and, secondly, his conviction. Certain peculiarities often render identification a comparatively easy matter; but when these marks are obliterated, and the appearance of the individual changed to a great extent, the affair becomes more serious for the detectives. As a general thing, they are furnished only with a photograph, and with this they are to pick out of hundreds of criminals the one they are in search of. A very accurate description also accompanies the picture. So easy is it for the criminal to alter his entire appearance that in a short time a complete metamorphosis is effected. Criminals have gone so far as to cut off a finger, or have pulled out several front teeth, to change their identity. Of all disguises the most effectual are produced by the use of washes and dyes to alter the color of the hair. Some years ago this method of disguise was considered out of the question, and it was not till Orfila, the renowned chemist, testified to the contrary, that it was believed practicable.

The first case of this kind when identity was doubted occurred in Paris, where a murder had been committed. One witness swore that he had seen the suspected person at ten o'clock in the morning at Paris, and affirmed that his hair was black; while others testified that they had seen him in *Versailles*, with fair hair, at five or six o'clock of the same evening. The man's hair was naturally jet black (and it does not appear that he wore a wig). The question in consequence proposed to Orfila by the law authorities was, whether black hair could be dyed fair. One of the first hair-dressers of Paris, who was consulted, declared that it was impossible; but Orfila stated that it was not only possible, but that it had been done twenty-six years before by Vauquelin, by means of chlorine. Since this time it is commonly done, and, in the greater number of instances, the hair of the criminal is red, sandy, or brown, and it is dyed black by preparations of silver, lead, bismuth, or sulphur, first washing out the hair with some alkali. To bleach it, chlorine-water or peroxide of hydrogen is chosen. In spite of these ingenious measures, however, the chemical expert is ahead of them, for at his disposal he has reagents to detect the metal, which is readily found, or by close inspection he can, at the end of a day or two, see the difference in color

between the dyed portion and the natural hair. In speaking of the obliteration of certain scars and India-ink marks, it is stated, in opposition to the popular idea, that these stainings are not indelible. Caspar and Hutin have devoted themselves to the investigation of the subject, and found in many cases that scars could be removed. Caspar found that of four hundred and nine persons forty-seven were able to "change their spots." In regard to India-ink and other pigments which have been pricked into the skin, we have an admirable article by Tardieu in the "*Annales d'Hygiène Publique*," vol. iii., p. 171. One prisoner seen by him removed the India-ink tattooing very rapidly by a paste containing acetic acid and other substances. In a few days a crumb dropped from the skin, leaving a clean surface. Questions of identity based upon striking peculiarities of the individual are often cleared up by the merest chance: for example, a man was found murdered, and from the direction of the knife-wound it was strongly suggested that the murderer was left-handed. After vain attempts to solve the difficulty, he was told to hold up his right hand; thrown off his guard, he immediately held up his left.

The slightest trifles will be seized upon by the watchful detective, and often secure conviction. No better example can be given than that cited by Best. The criminal was detected by a certain malformation of his teeth. A robbery had been committed, and in the morning some partially-eaten fruit was found upon the table in one of the rooms. The attention of the police was called to peculiar teeth-marks upon the apples, indicating the absence of two front teeth from those of the eater. An individual had been seen lurking about the vicinity a few days before, with this dental defect. When taxed with the crime, he promptly confessed it. So, too, are the footprints telltale witnesses in many cases, though this proof is not so valuable as it might be. A slipper or boot may often make a print which is really much larger than the foot, and which it does not subsequently fit. M. Hougolin has devoted himself to this branch of the study, and devised a plan which enables him to take impressions of feet in the soil for comparison with those of the suspected criminal. He raises the temperature of the impressed ground to 212° by placing over it a brazier of live charcoal. He then dusts pulverized stearine into the impressions, which, when cold, is removed, and he is enabled to preserve an exact mould of the footprint. A plaster-cast can afterward be made. The only obstruction to the process is snow; but even all loose, sandy soils can be so treated with good results.

Great stress has been laid upon the chemical analysis of soils. At best this measure is only approximative. No two soils are exactly alike; and, as with other chemical tests, we do not always get certain proofs for conviction. For instance, but a short time ago expert testimony was introduced by the prosecution in the case of Rubenstein, the murderer. Analyses had been made of the soil of East New York, where the crime had been committed, and the soil of the street in New York, where Rubenstein lived. The results of these analyses were compared with those of the mud upon his boots. Considering that the

prisoner may have carried mud upon them from a dozen different localities, the testimony would have but little value.

In alluding to the question of scars, it was said that in many cases it was possible to efface them. It might be said also that, in deciding the identity of murdered persons, it often becomes necessary to examine these marks, as well as to determine whether certain wounds were inflicted by the person himself, or by some one else; whether they were accidentally received in falling; or, finally, whether they were received after death. These questions are too often puzzling and perplexing, and very often have serious weight. To enumerate the different features of these doubtful cases would take many pages, but a few examples might be given in a small space. For example, a knife-wound in the back would throw out of the question suicide; while a pistol-wound in the mouth would strongly point to such a cause of death. Not more than a year ago in France a case occurred which created some excitement. A woman had been found hanging from a rafter, and strong suspicion was entertained that she had been murdered and then suspended by the murderer, to give the idea that her death was caused by her own hand. The circumstances all pointed to it, and the young man with whom she had been more than intimate in the absence of her husband stood for some time in danger of losing his life. What strengthened the case was the fact that discolorations were found on her body. It was afterward found that these latter were the result of disease, and that the man was not the murderer. This device is a common one with murderers; but nearly always examination reveals some other injury; or, on the other hand, the hanging is done in such a bungling manner as to put out of the way the theory of self-murder.

Chemistry comes to our aid in many ways. On several occasions bodies have been so burnt or charred as to defy identification, and analysis is the only thing to fix the identity. A set of false teeth, or even a button, has escaped destruction, and has been secured to convict the criminal. In one instance the process of combustion had been so thorough that nothing was found except a small vitreous substance which, when examined by chemical experts, proved to be the mineral part of a set of false teeth. A mysterious murder was committed in a small French town two years ago. The victim was the *curé*, and he was found dead with a ball through his head, and another lodged in his brain. It was extracted, and found to be cast from pewter. This was the only clew the police possessed. After a month or so, suspicion fell upon a shoemaker, who had borne ill-will toward the *curé*. On examining his house, a pistol and three bullets were found. Two chambers of the pistol had been discharged, and the balls obtained resembled that extracted from the brain of the murdered man. The shoemaker was arrested and tried, and the bullets presented, but they were not considered sufficient to convict him, they being the only evidence. He would have escaped, had it not been for a young chemist who begged to be allowed to make an analysis. He received and weighed them, and found all weighed the same, although that extracted

from the head of the *curé* was somewhat battered out of shape. Chemical analysis demonstrated that they were exactly alike in chemical constitution—even when subjected to the most delicate analysis—and that they differed markedly from twenty or thirty other pieces of pewter. The conclusion arrived at was, that no two specimens of pewter are alike, as this metal is not made in the same way at any time, the proportion of its ingredients varying considerably.

Chemistry undoubtedly helps us more effectually in the examination for poisons than in any other way. We may imagine how difficult the task must be when we take into account the small amount of some poisons that is required to destroy life. Taylor says: "This may be tested by the smallest fatal doses of some well-known substances. In one well-observed case, two grains of arsenic, given over a period of five days, destroyed the life of an adult. Supposing the whole of this quantity had entered into and remained in the blood, it would have formed only the ninety-eight thousandth part by weight of that liquid; but, as elimination and deposition go on simultaneously, the proportion in the blood at any given time must have been much less than this; and yet there can be no doubt that the poison destroyed life by its action on the blood!" Of course, analysis of this fluid is a delicate and difficult matter, and we are occasionally obliged to resort to the spectroscope. Preyer, of Jena, has done more with this instrument than almost any one else. Prussic acid spectra present two well-marked absorption-bands which in size and position differ but little from those of normal blood. There is a larger absorption of the violet and red rays, however, than in the normal blood. Oxalic acid gives one band in the orange on the left of the sodium-line, and a complete absorption of the violet, indigo, blue, green, and most of the red rays. Some poisons, however, are eliminated very quickly from the system, and we are unable to detect their presence. Among these are the organic poisons, which often defy detection. The color of blood is sometimes markedly changed by poisons, becoming either purple, black, etc.

Many notable cases figure in the annals of medical jurisprudence, demonstrating the difficulty of making distinction between accidental and intentional poisoning. With Wilkie Collins's admirable theory of the "Law and the Lady" in view, we call to mind the really ingeniously-constructed poisoning case. This fictitious case, like many real ones, suggests the fact that often the use of arsenic as a beautifier by vain women, or as a remedy by patients with cutaneous affections, sometimes produces the death of the user, and occasionally suggests criminal action on the part of relatives or friends. An example is quoted by Taylor: "A girl, nine years old, died after a short illness, with obscure symptoms suggesting criminal poisoning. It afterward transpired that her step-mother, who was suspected, had used it in an ointment that had been applied to the scalp. *Post-mortem* examination revealed traces of poison in the internal organ, and the question arose, whether arsenic had been administered in the food in-

tionally, the step-mother being known to have maltreated the child. As death occurred at the end of nine days, a long time, and as the presence of the arsenic in the stomach and intestines was simply the result of absorption and preparatory elimination, the woman was acquitted."

When we devote ourselves to the examination of blood found on the body of the suspected person, the furniture of the room, or the textile fabrics, the microscope is of invaluable service. We have several points to consider, and various questions of interest arise: 1. Is the substance found blood, and is it human blood? 2. Was it accidentally deposited upon the person or not? This first piece of information is often difficult to obtain, as there are many things which closely resemble blood—among these the iron salts, and various dyes. We have to be very careful in removing stains from knife-blades to avoid removing rust as well. After we dispose of these doubts, and when we decide the spot to be blood, we have to determine whether it is human blood or not. There has been much discussion in regard to this matter, and, though some writers say that there is marked difference between the size of the blood-corpuscles of man and the other mammalia, it has been the general opinion of able investigators that there is none.

A great deal of animated discussion has been provoked by a recent murder case, particularly between Drs. Richardson, of Philadelphia, and Woodward, of Washington. Dr. Richardson is of the opinion that the size of corpuscles differs in man and animals. Dr. Woodward takes decided ground against him, and against many other observers, among them Gulliver, as we have seen. Dr. Seiler, of Philadelphia, considers it perfectly easy to make these distinctions, and, in a recent article, suggests the plan of making comparative photographs by the micro-photographic apparatus. Seiler says: "In placing two kinds of blood—for instance, that of man and of sheep, pig, or ox—upon the same slide, close enough together to bring the disks of both into the field, the difference, as seen in the photograph, is a very striking one. The smallest of the human disks are always larger than the largest of the disks in sheep, pigs, or oxen; and, although an accurate measurement is, perhaps, not possible on account of the thickness of outline, still the difference is sufficient, even without measurement, to tell one from the other." There are certain grand distinctions, however, where there is an absolute certainty in telling whether the blood is from mammalia, birds, fish, or reptiles. The corpuscles of the three latter are all elliptical, while the former are circular. It occasionally happens that the criminal becomes caught by his own attempts to explain away the appearance of blood upon his clothing. A man who was suspected of murder was arrested, and, when questioned in regard to some bloody spots upon his coat, attempted to account for them by saying that he had been cleaning fish. The microscope revealed the fact that the corpuscles were round and not oval. All blood-corpuscles become smaller in dried blood, and this should be taken into account when an examination is made. This question of difference in the

size of the corpuscles has been such a perplexing one that various other tests have been thought of. Numerous German investigators have attempted to solve the problem, and have advanced the theory that a certain coloring substance of blood, *hamaglobine*, from different animals, will crystallize in a different way. This test is not so exact as it was originally thought to be, and we are again in want of a new plan. An infallible test, however, is obtained by the spectroscope, that most valuable of instruments. It is competent to detect the smallest trace of blood, even after clothing has been washed. The spectra are eight in number. One-half of the spectrum, from the violet end, is entirely absorbed, and dark bands appear in the green and red rays. Sorby believes that even the one-thousandth part of a grain of blood can be recognized. Surely, with such an instrument as this at our disposal, the chances for the suspected person are very small. Occasionally innocent people are suspected unjustly. Nose-bleed, insect-bites, and other accidents, will be misunderstood, but, in the latter, it will be found that they are usually next to the skin. Sometimes collections of hair are found on weapons or upon the boot-heel. It is not difficult, with the microscope, to tell whether it is from the human head or not. With the new discoveries that are being made every day, and the valuable agents already in our hands, the statistics of crime and the certainty of arrest will be greatly increased in the future.

ALLAN McL. HAMILTON, M. D.

ODE,

WRITTEN FOR THE CELEBRATION OF THE
CENTENNIAL ANNIVERSARY OF THE BATTLE
OF FORT MOULTRIE, JUNE 28, 1876.

ROLL back the shadowy curtain of the years!
Let these our eyes, illumed with fuller light,

With larger apprehension than were theirs
Who strove throughout that hard and weary night
Of doubt, distress, and struggle long gone by—
Behold once more our fathers' rugged path,
Their sky deep-clouded with black shades of
wrath,
Their steadfast strife, their patience stern and high.

Let their grand battle-cry
Resound once more to these our straining ears,
Till every heart that hears,
And every pulse that throbs beneath the spell
Of that transcendent memory, shall be wrought
Into the passion of that glorious thought
For which they bore, and bled, and fought, and fell!

Shade of the mighty Past, look back and see!
Lift thy proud head and turn once more on us
The splendors of those calm, victorious eyes.
Thy task is ended; thy repose is won!
What fellowship, alas! have we with thee—
We, whose heads droop; whose sluggish life-
tides run
Through dry and barren sands; whose pilgrim-
guise
Is dark with dust and stained with toil and tears?
Shall we be emulous
Of thy high calm, thy crown of glorious years?

How shall we chant thy psalm—we to whom
The Fates that gave thee light have given gloom,

And loss, and pain, and sorrow? Shall we stand

Before thy full achievement and lay down
Our funeral-wreath beside thy laurel-crown—
Our tattered, drooping flag beside thy grand
And absolute and unalloyed renown?
What place within the shrine of Victory
Hath veiled and taciturn and sad Defeat?
Will not the gleam of thy triumphant smile
Light up the shadowed paths we would not see—
The onset fierce; the reflux battle-surge;
The long, dark, woful, sternly-trod retreat;
The grave-mounds marking each slow, stubborn
mile;

The mute, sad end; the bier; the pall; the dirge?

Ah! how shall we,
Girt round with those sad memories, come to-day

With harp, and crown, and plume, glad garb,
and rapturous lay?

For who shall tell us that we must not heed?
We are but men and women—these our hearts
Are still all human in their want and need,
Their hope, their love, their sorrow, and their loss.

We know not by what cunning conjuring arts
Our hard and heavy cross
May bud and blossom into joyous palms;
Our life-cup's bitter lees
Be changed at will into soft, easeful balms;
And voices that so long
Have been attuned to mournful minor-keys
Swell forth in sudden peals of proud, triumphant
song!

And so—as standing here before your Fame,
And musing, O our fathers, on your story,
We name once more each old heroic name—
The vision of a nearer, sadder glory
Walks with us still, and chastens every thought,
And bids us pause, and think, and not forget
The truth for which both you and they have
fought

The tryst to which our hearts are faithful yet.

But not all mournful, all forlorn we come.
There is a hope, a prophecy, a sign
In the grand memory of those glorious days.
The tap of that old Continental drum
Stirs us to-day as when the battle-haze
Hung over Moultrie, and the blue sea-line
Was lit with sudden flame, and far and fast
Along the tossing, turbulent ocean-ways
The bolts of death outsped the fiercest blast.

Once more we stand
With those stout gunners on the island-sand;
Once more the shattered war-ship turns at last,
And the proud flag once more floats free in Jasper's hand!

And by this mighty thrill
That strikes through all our pulses at the thought,
We know that we are one with those who fought
That noble patient fight
For freedom, truth, and right;
One with their strife, their hope, their destiny;
Ay, one, if so God will,
With them in their eternal liberty;
Into what mould so'er
Our future life be wrought,
Dowered with smile or tear,
One, one with them—their faithful children still.

Ah, brothers! you who gather here to-day
To breathe your orisons before the shrine
Of Freedom which they reared—draw near and pray

That we, the sons of those whose strife divine
No heart forgets, no tongue delays to sing,
May bear our part as nobly and as well.
Not every age has their great tale to tell;
It is no little thing

To bear, and wait, and walk life's daily road,
And keep clean hands, and single hearts and souls

That shall not dread the quickly-coming end.

The seed our fathers sowed
We still may nurse and cherish, though the sky
Be very dark, with no sweet sun to friend,
While far and wide wrong's swollen current rolls,
And Ruin sweeps on vulture-pinions by.

It may be that the coming years shall hold
Our guerdon too; that yet to their high calm
Our lives may rise that are so troubled now—
That we, too, whom these transient clouds enfold,
Shall yet chant with them their triumphant psalm

As once we breathed the same heroic vow.
But this at least we know—we shall not shame
Our glorious birth, nor do their honor wrong,
If with true heart and purpose clear and strong
We watch in Freedom's courts and guard her altar-flame.

Then wake the song, and let the brave prayer rise!

Till, in the ample recompense of Time,
Loss learn its true fruition, and our eyes,
No more bedimmed with smoke of sacrifice,
Greet a fresh dawn, day's harbinger sublime;
While soft and clear beneath those tranquil skies,
Pealing Hope's glad new birth, the mellow
peace-bells chime!

G. HERBERT SASS.

EDITOR'S TABLE.

NOTHING in this "vale" is without its disadvantages, not even "an eligible suburban residence" amid bowers of lilac and laburnum. Delightful it is to go down and dine at such a retreat with Brown, who so thoroughly understands "a little dinner." Delightful are the breezes of early summer, as they waft balmy odors into that pretty drawing-room, while you sip your coffee and Curaçoa and regale your ears with Mrs. Brown's delicious soprano. What a paradise it seems! You long to linger, but time, inexorable time, hurries on. The last train leaves at ten, and go you must. You hasten down the shrubbery, envying that lucky dog Brown. "By Jove!" you, a miserable bachelor, think to yourself, "if I only had such a place as this!" Meanwhile, Mrs. Brown is saying to her spouse, "Did you see, dear, the account of that dreadful robbery?—What was that?" she suddenly interpolates.—"Now, Henry, I'm *sure* I heard a step!" She is with difficulty reassured by her husband—himself in what is vulgarly yet expressively called a "blue funk"—and proceeds: "Oh, it was a *horrid* affair: wretches with masks, who tied up a poor woman, and threatened to singe her husband's whiskers off unless he divulged where the plate was." Brown gives a ghastly attempt at a laugh, poor fellow! and instinctively puts his hands toward his own much-cherished hirsute appendages. He tries to joke Mrs. Brown out of her fears; but it won't do. Were the

truth told, both are—how great is the law of compensation!—envying Robinson who is hurrying back to town.

It is no exaggeration to say that the Browns' is the frame of mind of a heavy percentage of those who dwell in the delightful villa-residences "convenient to" a railroad, within a radius of twenty-five miles of this head-centre of burglardom. And, indeed, they have ample cause for apprehension. It is little more than a year since the demure residence of Judge Van Brunt became famous by that heroic conflict which ended in the too speedy demise of the ruffian who had kidnapped Charley Ross; and last summer the villages along the Hudson presented a continuous succession of burglarious triumphs. Even in districts off the great thoroughfares similar apprehensions prevailed. Many persons are afraid to bring down any plate with them, and others seek safety in electric bells connecting with stable and farm burglar-alarms, loaded revolvers, and dogs with tempers too ugly, they flatter themselves, to be cajoled by the poisoned dainties of Bill Sikes.

But, although we are disposed to give to New York the palm of danger from this source, over other cities, it must in candor be confessed that the neighborhood of nearly every great metropolis is exceptionally unsafe.

Dwellers around London can speak very feelingly on this head. During the past two years, the hauls made within a radius of twenty-five miles of that city have been sufficient to satisfy Fagin himself. And there, moreover, the *modus operandi* has been so delightfully simple; positively nothing to do but to put a ladder to the wall, when the family is at dinner, and then pop into my lady's chamber. In this easy yet effective method, Madame Van de Weyer, daughter of the late Mr. Bates, of Boston, and widow of the eminent Belgian minister, in England, was relieved of some very choice property last year; and within the last two months the *entrée* has been obtained on precisely the same principle, and with equal success, into the houses of several noblemen.

Under these circumstances those intending to pass the summer on the Hudson, and other charming retreats near New York, would do wisely to take time by the forelock as to devising more effective means of enabling them to secure an undisturbed night's rest—for it is decidedly uncomfortable to retire with the expectation of awakening to find a masked ruffian bending over you in the small hours with the cold muzzle of a pistol at your ear. Necessity is the mother of invention in burglar-foiling as in other things. A little, yapping dog, which rushes away from strangers, has decided merits. A mother-in-

law has been tried in one case, to our knowledge, with great effect. This lady, who has a habit of paying protracted visits to a beloved daughter, is stowed away in the apartment most accessible to house-breakers, and her tall and awful appearance in night-attire, and intrepid demeanor, has already abated and dissolved two sets of burglars. But a lady who lives on the Hudson hit upon an expedient last year which proved exceedingly effective. In her husband's absence she was left in her house with three or four maid-servants—the stables being at a distance. Soon after midnight she became aware that there were men trying to break in, and at first felt unable to do more than call to her maids, and lock the suite of rooms communicating with the rest of the house. Presently, however, "a happy thought" struck her. On the mantel-shelf were two Roman-candles, the remnant of a display of fireworks; so, stepping out on the balcony, she threw off one, which shot up fizzing and spluttering high into the air. This was presently followed by another. Then they listened, and heard retreating footsteps. At length, taking courage to descend, they discovered unmistakable signs of burglars having been at work, but all the valuables were left behind in their hasty retreat. This shows that signals might be turned to good account. Given an efficient horse-patrol, a preconcerted rocket-signal would instantly put them on the track. To live in a continual apprehension of being "burgled" is so intolerable that this, or any other, trouble would be well expended in obviating it. Pistol-shooting, too, a capital hot-weather amusement, might come into vogue among both sexes, and a very high prize be awarded to any one who "wings" or "pots" a burglar. No pity, no quarter, should be shown to such abominable pests of society.

A WRITER in the *Saturday Review*, upon our honeymoon customs, attacks one of the most absurd products of our civilization. He is referring especially to wedding-journeys; but really, from the beginning to the end, the tremendous ado that is made about a marriage; the vast amount of parade and ceremony; the publicity, the fuss, the excessive expense—all these things make a marriage something which women may delight in, but men look upon with fear and trembling. The wedding-journey, however, upon horror's head horrors accumulate. In this monstrous fashion we condemn, quoting the language of the *Saturday Reviewer*, "the unfortunate couple to a penance which would try the deepest affection and irritate the sweetest temper." And do any of us know how often the deepest affection succumbs to the tremendous trial, or how frequently the

sweetest temper is thereafter soured for life? It is notorious that travel tries severely the most confirmed friendship; that it brings to the surface all the most unamiable qualities we possess; that none who are less than angels can be serene, tender, considerate, amiable, entertaining, amid the dust, the heat, the confusion, the whirl, the fatigue, the innumerable nerve-exhausting conditions that pertain to travel; and these trying experiences come at a time when two persons are for the first time delivered solely into each other's society—at a moment when the strangeness of a new relationship is troubling the heart, and the apprehension of an unknown future is filling the imagination with many surmises; they come just when the overstrained nerves need relaxation and peace, when the eager breast is solicitous only for sympathy and calm. Now, what is it that usage prescribes? It declares that a young couple should in this most sacred hour of life be subjected to the curious regards of strangers in cars and waiters in hotels; that dismal hotel parlors and dreary hotel apartments are the nearest approach to domestic seclusion and comfort that can be secured; that excitement, movement, flurry, and fatigue shall make up each day's record. This is what usage sets down as the programme for newly-married folk. The marvel is, that it is the bride and the bride's friends of her own sex that demand rigid and uniform compliance with this usage. It is notorious that a woman will submit to every suffering and undergo every penalty required by fashion. She will sacrifice her beauty and comfort in dress, and jeopardize her dearest prospects of life, to the requirements of usage. A wedding-tour may have untold discomforts; it may embarrass her modesty, endanger her conjugal bliss, injure her health, lay the beginnings of bickerings and differences; it may have every known disadvantage, but it will be insisted upon if society utters its behests to that effect. It is women who are specially anxious that marriages should multiply, and yet it is women who have given the wedding ceremony such elaboration of display, and loaded it with such costly expenditures, that marriage, with a majority of men, is rendered impossible. Fashion, or common-sense, or some other power, should dictate that marriage ceremonies ought to be simple and unostentatious, and that after the ceremony is performed the calm of some sweet seclusion is absolutely necessary, not only for the future health of a wife whose nerves are already overstrained by the excitement of what is to her a tremendous event, but for the foundation of an intercourse between the newly-united couple that shall be sweet and lasting. Have any of our people the courage to defy usage, and act according

to their own inclinations at this important period? It seems, according to the writer in the *Saturday Review*, that in England a notable device is sometimes employed, by which Mrs. Grundy is both satisfied and defeated. We quote from the article referred to:

"When Hodge and his sweetheart crown their pastoral loves in the quiet old country church, they enjoy a walk in their finery and white-cotton gloves, and then take possession of the cot beside the wood, and settle down at once to conjugal comfort. But they have chances of happiness denied to their richer neighbors. It is a matter almost of moral duty, certainly of superstitious strictness, that when the squire marries the rector's daughter, or my lord marries my lady, the first month of married life must be passed in the discomfort of foreign hotels, or the still less endurable desolation of English inns, as if to strain to the utmost the strength of their newly-made bonds. Now and then, it is true, a bridegroom may know better. He has, perhaps, been married before, and does not forget his old experiences. When the carriage comes round, and his bride and he, amid showers of slippers, and rice, and other senseless manifestations of the inanity of the wedding-guests, step in and are whirled away, he drives out by one gate and, after a short excursion over the hills, returns by the other, treading on the heels of the departing. But such a contrivance requires considerable forethought. Papa and mamma must be persuaded to wink at it. There must be no evening ball, and the junior branches of the family must be dispatched elsewhere under various excuses. Most men contemplate some such escape from the tyranny of usage, but few there be that can accomplish the fulfilment of their scheme. My lord sometimes borrows a friend's house, and exchanges the prying glances of waiters for those of private domestics; but his fate is little different from that of his less-distinguished neighbor; and when modern mothers grumble at the decline of matrimony among eligible young men, they forget that many a man who would walk coolly to the cannon's mouth, or even undergo the amount of ceremonial required by the social usages of a village, cannot, even if he would, face the long and bitter agony of a fashionable wedding—the preparations, the bridesmaids' lockets, the settlements, the bishop and three other clergymen, the sexton of St. George's, the dreary mirth of the breakfast, the speeches, the presents, and finally the four white horses, the down-drawn blinds, the railway-station, the luggage, the horrors of the middle passage, and the yawning desolation of the wedding-tour."

The device of slipping round and entering another gate is not practicable with us; but at least a resolute bridegroom might have a secluded cottage somewhere, and insist that his newly-won spouse shall pass the honeymoon there, restful and peaceful in his companionship, rather than be dragged a weary round of exciting public travel, the cynosure of every eye, the marked out of the irreverent, with possibly the young store of affections rudely shocked by the exigencies of sorely-tried temper and much weariness of spirit and body.

WE are fortunate in this country in only having experienced lighter attacks of the labor-conflict which has at times shaken and

distracted England, and gone there to the extremes of actual labor insurrection. Yet we have had enough of such collisions to make us stop, and think, and discuss the very vexed problem of the relations and reconcilableness of labor with capital. Writers have written and speakers have spoken much of this topic in recent years; but it happens that the form of our government and the spirit of our democracy afford us certain anchorages which can neither be written nor spoken away. Is not one of these the principle that labor shall be everywhere and absolutely free? Trades-unions may be formed by whatsoever persons please; and as long as trades-unions act within the law, and are voluntary, none will be able, even if they should wish, to disturb them. But, if our democratic theories mean anything, they mean that no man or body of men shall, by intimidation, threat, or violence, or any other method than that of verbal persuasion, hinder a laborer from earning his bread where and as best he can. Of course, it does not matter who that laborer is, or where he came from; whether he be an American, an Irishman, or a Chinaman. A great deal of excitement exists on the Pacific slope with reference to Chinese labor. The workmen of native or European birth find themselves outbidden in the labor-market by the cheapness with which the squint-eyed Celestials will give their services. There is, indeed, considerable hardship in this. To see an Asiatic race come in, and, because they can live on almost nothing, step into the places not only of laborers, but of industrial operatives, must naturally be very bitter to the latter; no wonder that they complain and protest. Yet it will not do to depart from the principle that the Chinaman has an absolute right to work for just what he pleases, and that in this right the government should firmly protect him. It will not do, moreover, as a matter of policy, for Americans to persecute cheap labor. It is, above all, labor that this country needs—plenty of it, cheap, and in sharp competition—to develop its resources, and to enable its manufactures to cope with those of the Old World. The laborers of San Francisco, if they found themselves outbidden in that market, ought to seek another: on this continent there are plenty of places where well-paid labor is in demand. As to the charges against the Chinese that they are dirty, degraded, full of vices, these are an affair of police regulation and the courts, not of rival laborers. No one would think of arguing that they should be favored in their bad habits. But as to the price of their work, that is to be settled between themselves and their employers alone, without interference from any quarter.

It is the tendency of the age to be merciful; and especially concerning what are called "political offenses" modern civilization is prone to be lenient. Time was when there was no crime so heinous as that of high-treason. It makes one's blood curdle with horror to think of the tortures and ignominies which used, in the good old times, to be heaped upon traitors. They were dragged through the streets with chains, dissected alive, gibbeted, their heads stuck on poles and over archways, their property confiscated, their titles abolished, their families reduced to penury and shame. But the traitors of these modern days fare tolerably well. It is only in semi-civilized countries, like Spain and Turkey, that they lose their lives. Often they are put into prison, or sent into penal servitude for life, and after the lapse of a few years are pardoned out, and become, now and then, very respectable subjects again. Nay, you will find men who have been convicted of treason sitting in the very parliaments of the states against which they have conspired. The late Mr. Martin, M. P., was convicted of treason; Louis Blanc, a member of the French Assembly, was declared a traitor, and so were some of his present colleagues, not to speak of several grave and reverend French senators; Count Andrassy, Chancellor of the Austrian Empire, had a price set on his head as a traitor; Señor Castelar, a deputy in the Spanish Cortes, was imprisoned once for the same political crime. But though traitors of the past are eligible to sit in the British Commons, the French deputies, and, for the matter of that, in the American House of Representatives, neither England nor France is ready to pardon the traitors each has now in limbo. The Fenian revolt took place so long ago that it seems as old a story as our own war; most of the captured and condemned Fenians are now free; yet England refuses to amnesty the fifteen who still languish at Dartmoor, or in the penal settlements of Western Australia. The Communist insurrection was much more recent, more bloody, and more destructive; and France cannot yet consent to the return of Rochefort's unbridled tongue and Assi's unrivaled skill in organizing belligerent strikes. There is certainly a broad difference between the two cases. England is strong and settled in her government; she can have little to fear from the fifteen haggard fellows who still suffer the penalty of their revolt; moreover, they are represented as penitent, and ready to re-vow their allegiance to the British crown. France, on the other hand, is yet in the suspensive state of political experiment; the republic is rather struggling to found itself than founded; and many of the Communists are still loud in their defiance, and from safe nooks in Brussels and London

keep up a perpetual fire of tirade against the government as it is. England could have afforded and would have been wise to grant amnesty; France is not yet in a condition to be so magnanimous.

ONE who signs himself "A Subscriber" sends us the following:

"I have been wishing for a long time to ask you a question in reference to your 'house-top habitation theory,' broached some two or more years ago in the pages of the JOURNAL. 'How would you dispose of the constantly-falling soot of all cities?' I own the idea always possessed a charm for me. I thought it feasible and practicable, and that it would soon go into effect, and be highly conducive to health and comfort.

"In our Southern city, up to the date of my marriage, a year and a half ago, I was in the habit of sleeping on top of the tin roofs of our stores some three or four months every summer and fall. I have always found it highly comfortable, and never caught the slightest cold, and have always enjoyed splendid health. It is astonishing how much cooler it is right out under the open sky in the hottest weather than it is possible to be in any house. I have tried it and know."

"A Subscriber" evidently lives in a country where soft or bituminous coal is exclusively used. When we advocated our house-top garden, we were thinking only of this locality, where anthracite coal is principally used, and soot from the chimney is too slight to be noticed, or to prove an obstacle to the plan.

WE have the satisfaction of announcing that Professor Huxley will visit this country this summer, arriving here early in August. His stay will be very brief, but he has, nevertheless, consented to give three lectures before his departure. Although these lectures must necessarily be given at an unfavorable time, when so many of our citizens are at summer resorts, the interest felt in Professor Huxley will not fail to hurry into town thousands of country sojourners, eager to listen to this eloquent and distinguished man of science.

WE call the attention of the reader to an announcement on the last page of this number of the JOURNAL, by which he will see that an important change is to be made in the publication of the JOURNAL.

Science.

THE NEW YORK AQUARIUM.

HAVING already announced that, at last, New York was to number among its many attractive pleasure-resorts a fresh-water and marine aquarium, we are now prepared to present a brief but authentic description of the proposed work. The site chosen is a central and accessible one, being the plot of ground at the corner of Thirty-fifth Street and Broadway. The building will be of brick, one story in height, the walls inclosing an area of nearly twenty thousand square feet. The Broadway front or entrance will be two stories

high, the rooms above having been set aside for use as a free scientific library and naturalists' laboratory. The great room which is to contain the tanks will be covered by a wooden roof, supported by iron or wooden columns, which have been so designed and located as to offer as little obstruction to the view as possible. In the centre of this inclosed area stands a grand circular tank, composed of heavy panes of plate-glass, supported by light and gracefully-designed iron columns. This tank, which is already completed, has an interior diameter of twenty-five feet, and will be made the home of such larger fish as the white whale, the shark, or the sturgeon. Against the northern side, with a narrow passage-way separating them from the wall, will be built a series of tanks arranged as follows: In the centre four tanks, each ten feet in length and six feet high; on either side of these four others, similar in design, though somewhat smaller; and beyond these a third series, again slightly reduced in height and width. This form of construction was adopted in order to insure a more perfect circulation of the water from the high central tanks to the lower ones on either side; thence the water will be conducted to the filters, reservoir, and aerating and distributing pumps, which will be described hereafter. Standing at right angles with this row will be a grand tank, having a glass front of about seventy-five feet, unobstructed save with the light columns needed to support the great panes of plate-glass. The glass used in these as in the other tanks is French plate, varying in thickness from an inch to half an inch. It is proposed to imprison in this great tank such of the larger and more active fish as require space in order to display them to the best advantage. Against the western wall a home for seals and sea-lions is to be constructed. This will include a large pool backed by sloping rock-walls, upon which the creatures may climb, and from which they can slide in their odd fashion into the pools below. Another large stationary tank will occupy a portion of the space against the eastern wall. Owing to the form of the interior, there yet will remain a large area of space unoccupied by stationary tanks. This will furnish room for a large number of so-called table-tanks, both deep and shallow, marine and fresh-water. Although less imposing in appearance, these smaller tanks promise to prove of special interest to the visitors. As they can be more closely approached, the habits of the fish can be studied with special advantage; and to those not familiar with the wonders of the sea, the form, and especially the colors, of many of these creatures will prove a grateful surprise, as the table-tanks are constructed of four or more glass walls, supported by corner-posts merely. The interior arrangements consist chiefly of a pebbly or rockwork bottom. Not so with the side or stationary tanks. These have but one glass face or front; hence it is needful to so construct and arrange the back as to heighten the effect, and at the same time make the fish feel "more at home." These back walls will, therefore, be composed of rockwork and cement, so constructed as to produce all desired effects, at the same time

that they shall serve as a retreat for the creatures within, without concealing them.

From this brief description of the aquarium as it will appear, we pass to a brief notice of the concealed though equally important features. Mention has already been made of the passage-way behind the main tanks. This will serve as a means of approach for the attendants, whose duty it shall be to feed the fishes, cleanse the tanks, and regulate the temperature of the water and its flow. As has been intimated, the system adopted will combine the best features of both the circulatory and aerating systems. Near the front of the building a sunken reservoir has been constructed, having a capacity twice that of all the tanks. Adjoining the reservoir will be the boiler-room and steam-engines and pumps. The supply for the fresh-water tanks will be obtained directly from the Croton mains, but the sea-water for the marine tanks and reservoir must be clean, pure, and cold, brought in from the sound or bay in barrels. With the marine tanks and reservoir full, the mode of effecting proper circulation will be as follows: The pumps being started, the water from the reservoir is projected through a "rose-spout" into a well or second receiving vessel of small size. This forcing through a rose-spout is needed to bring the water in full free contact with the air, and thus supply to it the oxygen which the fish may need. From this smaller vessel the aerated water is at once forced through hard rubber or glass-lined tubes to the fish-tanks; into these it falls in the needed quantity, the overflow being conducted back to the reservoir. As described, the method seems a simple one, and the whole scheme one easy of accomplishment. Let it be remembered, however, that these tanks are to contain fish from all seas, and that in many instances the life of the fish depends on the maintenance of a proper temperature in the water that surrounds him, thus often requiring the use of coolers. Great care must also be taken lest mineral or other impurities find their way into the tank, where they may act with fatal results. All these precautions require constant attendance and the use of complicated devices, which, though adding greatly to the expense of the aquarium, are yet essential to the success of the enterprise.

An important feature of this work would be neglected did we not direct attention to the fact that the managers of the New York Aquarium have determined to favor by every means in their power the furtherance of scientific research and study in these special fields. It was with this end in view that the rooms in the main front were constructed. Here is to be established a library composed mainly of works on natural history and its allied sciences, with a full set of scientific periodicals. Adjoining this room is a second, to be fully equipped as a naturalists' laboratory. Here will be afforded, by the aid of a series of experimental tanks, the means for studying the habits of such marine animals as may attract the student; and to further this work there will be added microscopes, drawing-tables, dissecting-sinks, etc., together with the materials needed for the taking of casts and photographs. The fur-

nishing and general direction of these rooms have been placed in the hands of a gentleman who has long been interested in the establishment of such an institution in New York, and who will receive the generous support of the manager and his assistants in his plans. The rooms will be free to students and teachers on application to W. S. Ward, box 4175, New York City post-office. The New York Aquarium as thus described promises to prove not only a most attractive place of popular resort, but an educational institution of decided value, since the facilities for study and observation in this field will be the best that can be furnished.

To Mr. W. C. Coup, of this city, is to be credited the establishment of this the first extensive fresh-water and marine aquarium in America. Associated with him are Mr. Charles Reiche and brother, and Professor H. D. Butler. The latter gentleman acts as superintendent, and from a long practical experience is well fitted for the present work. The enterprise, being a private one, will thus be dependent on public patronage for its successful maintenance, though from a personal acquaintance with the managers and their designs we willingly commend the movement to the generous consideration of our readers.

M. EMILE BLANCHARD, in his annual report on the work of the members of the learned societies of France during the past year, presents an interesting *résumé* of scientific progress in that country. Many of the discoveries here briefly indicated have been alluded to at length in our weekly notes, and in certain instances the devices have been illustrated and described. From a condensed review of this report we obtained the following facts, that can but prove of special value for future reference: Reference is first made to the discovery of the metal gallium, by M. Lecoq de Boibaudrau, and which has been already fully noticed, the *JOURNAL* of last week giving a detailed description of the later developments. In referring to the fact that the discoverer of gallium, though an able chemist, is a merchant, attention is directed to the fact that science is much more rarely cultivated by unprofessional men in France than in England. Other discoveries, practical and strictly scientific, are recorded as follows:

"M. Abria receives a medal for his two excellent methods of studying the phenomena of magnetism of rotation: in one case he reduced the intensity of the force from the decrease in amplitude of oscillations of the magnet, produced by the force from the active plate; in the other, from the angle to which the magnet is deflected from the magnetic meridian under action of the turning plate. M. Abria has also made important verification of Huyghens's famous theorem on the double refraction of biaxial crystals. M. Violle's comparative measurements on the intensity of solar radiation on the top of Mont Blanc, and on the Glacier des Boissons, and M. Mouchot's utilization of solar heat, should also be noticed. M. Alluard has had constructed, on the summit of Puy de Dôme, a meteorological observatory, from which important results are anticipated. M. Dumortier has devoted ten years to a large and valuable work on the fossil remains of the Jurassic period in the Rhône valley. The species of several families of plants, such as the Gramineæ, are often very difficult to distinguish; M. Duval Jouve has detected a number of minute differences in the leaves, stem, and root, and has greatly advanced the precision

of knowledge in this department. M. Fabvre has brought to light some strange facts regarding insects of the type of cantharides. These prolific insects lay their eggs in the ground; the young larvae climb on plants and attach themselves to the bodies of bees; conveyed to the cells of the latter, they eat first the eggs, then the provision of honey and pollen. M. Lortet has described the curious habits of *Chromis paterfamilias*, a fish of Palestine, which keeps its young in the sides of its mouth. The same author has published a volume of 'Archives of the Museum of Natural History of Lyons.' M. Filhol has very successfully examined some deposits of phosphorite, and has come upon batrachians of an ancient geological epoch transformed into phosphate of lime, and retaining the forms of life. The geology and vegetation of Campbell Island have been greatly elucidated also by M. Filhol. Most of the plant species are to be found in New Zealand; some are from Patagonia, very few from Australia."

As allied in interest to the jumping-seeds which we have recently described, attention is directed to the structure of those seeds which bury themselves in the ground. Mr. Francis Darwin, who has made this a special subject of inquiry, recently read a paper on the subject, from a review of which we condense as follows. The full title of the paper was, "On the Hygroscopic Mechanism by which Certain Seeds bury themselves in the Ground," and the chief observations were made with the seed of the feather-grass, *Stipa pennata*. The essential points in the structure of all seeds of this class are given as follows: 1. A sharp point more or less covered with reflexed hairs. 2. A strong woody awn, or beard, sharply bent at one point so as to be divided into a lower vertical and an upper more or less horizontal part, the vertical part being strongly twisted on its own axis. The peculiar feature of this structure is, that on being wetted the vertical part of the awn or beard untwists, and causes the straight horizontal part to revolve and describe a circle in an horizontal plane. As this awn becomes dry the movements above described are reversed and the angular bend is restored. The process by which the seed buries itself is hence described as follows:

"The long feathery horizontal part of the awn is easily entangled in low vegetation, and the seed is thus held in a more or less vertical position, its point resting on the ground. When the awn becomes wet it tends to untwist, but, the horizontal part being unable to revolve, the rotation is transferred to the seed; the tendency of the seed to straighten itself is also converted into pressure of the point of the seed against the soil. As the awn dries again, the seed is not pulled out of the ground, as would be the natural result of the reversal of the movements by which it was buried. On the contrary, it is actually thrust deeper into the soil during the process of drying. By the combination of these two alternate actions the seed is completely buried."

Although observation thus clearly demonstrates the fact that these seeds do bury themselves, it has not yet been determined why this is done. As the seeds, like many others, germinate without this action, the writer conjectures that it may serve as a protection against granivorous birds. Be the reason what it may, the phenomenon is certainly a most curious and interesting one.

In the *American Naturalist* for June, Dr. Charles G. Abbott announces the discovery of certain interesting Indian relics in New Jersey:

"By the uprooting of a large tree during the tornado of Tuesday night, February 1st, and a consequent land-slide on the south bank of Cross-

wick's Creek, near Yardville, Mercer County, New Jersey, the traces of the site of a former 'homestead' were brought to light, consisting of corn-mills, pestles, axes, hammers, spears, and arrow-points, associated with innumerable fragments of bones, mussel-shells, and charcoal. No fragments of the bones were sufficiently large to determine the animals to which they belonged, beyond the fact that while some undoubtedly were fragments of mammal-bones, the vast majority were those of birds and large fishes. The main feature of interest connected with the stone implements is the uniform character of the workmanship displayed in their manufacture. There was not found one polished celt, or a single specimen of jasper arrow-head."

Among the specimens obtained were sixteen arrow-points varying from one and a half to four inches in length; they were composed of a slaty rock now much weather-worn, soft, and pliable; one spear-head of the same mineral, and five specimens varying between spear and knife form, one of which was of white quartz. When exposed to view these implements were lying together about ten feet below the surface, the soil above being a sandy one. In addition to the implements mentioned were two corn-mills; these are large quadrangular sandstone bowlders, one with a depression only on one side, the other with a shallow cup on both sides; with them was a globular pebble three and a half inches in diameter, which had evidently been used as a crusher to crack and grind the corn and nuts to powder. There were also found thirteen grooved stone axe-heads, eight pestles, net-sinkers, hammer-stones, etc.

THE revival of the "antique" has brought again into favor the old form of curtained beds. It is true that the protest of the sanitarian has had its effect in reducing the extent of these curtains till now they act as a head canopy rather than a wall of drapery inclosing the whole bed. Although by this modification the sleeper is no longer deprived of a full share of fresh air, it appears that there is another danger even more to be dreaded. Dr. Rees, of Guy's Hospital, having discovered that these curtains were often lined with delicate green calico, made an analysis of the dust collected by beating this fabric, and found it to contain a large and absolutely dangerous amount of arsenic. The caution which this fact suggests is a wise one, and worthy of special consideration.

AN important discovery has been made in England regarding the properties of the residue left after the distillation of the oil from Kimeridge shale. This residue, it is said, is essentially animal charcoal, and as such may be made to render great service in the purification of sewage. Although no mention is made of it, yet the possible use of the same substance in sugar-refining will at once suggest itself, and, we doubt not, experiments have already been instituted to determine the value of this by-product in this direction. We learn that an immense deposit of Kimeridge shale can be worked in Dorset, England, and that it yields nine thousand feet of gas to the ton, leaving over eleven hundred-weight of a residue which is practically animal charcoal.

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Subscribers will have their subscriptions extended proportionately to the reduction of price. But any subscriber discontented with this arrangement may have the money refunded for the unexpired period of his subscription.

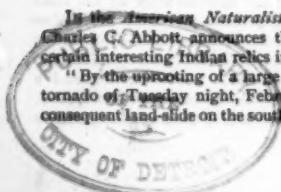
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